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ABSTRACT

This study investigated the need for distance learning in Pennsylvania's rural schools, examined types of distance learning programs and technology currently being used, and identified factors that could enhance or inhibit the use of distance learning in rural schools. Data collection included (1) a literature search, (2) surveys administered to rural school districts and urban/suburban school districts, (3) review of appropriate chapters in the Pennsylvania School Code, (4) analysis of 5-year plans that rural school districts submitted to the Pennsylvania Department of Education (PDE) and distance learning request for proposals issued by PDE, and (5) interviews with heads of state agencies in Pennsylvania and departments of education in 28 states. Satellite, cable, and public television are the major distance learning technologies being used, and SERC is the major satellite provider. While 112 responses indicate participation in some form of district learning, the majority of these use programs in foreign languages and higher mathematics. However, 340 responses indicate needs for participation in higher mathematics, foreign languages, the sciences, gifted education, advanced placement, elementary programs, and various other programs. Based on a minimum of 3 students per response, at least 1,020 rural students are being denied participation in distance learning. The state School Code does not recognize distance learning as such but does not prevent its implementation. Rural administrators, however, feel that a mandate requiring certified teachers as classroom facilitators prevents their participation. Administrators also indicate needs for financial aid, teacher and administrator training, technical assistance, and facility renovations. Contains 66 references, recommendations, and a glossary. Sixteen appendices to the final report include the following: (1) 37 additional recommendations in planning, funding, legislative, educational, programmatic, and evaluative areas; (2) a tabular summary of the 5-year distance learning plans of rural districts; (3) results of rural and urban-suburban surveys of school district practices and needs in distance education; (4) rural and urban survey instruments; (5) results of analysis of Chapters 3, 5, 6, and 49 of the Pennsylvania School Code to determine their impact on distance learning in rural school districts; (6) text of the above Chapters; (7) a statement on distance learning by the state Senate Education Committee; (8) commonly asked questions about distance learning in Pennsylvania; (9) guidelines and instructions for school districts submitting long-range plans as part of the Pennsylvania Strategic Planning Program; (10) lists of respondents to interim study data, state agency personnel interviewed, participants in the survey of other states' practices, and organizations contacted for position papers on distance learning; (11) an instrument to assess educational opportunities and identify needs in distance education; and (12) request for school district applications for distance learning funding. (Author/SV)

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CENTER FOR RURAL PENNSYLVANIA

Teleteaching Distance Education

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FINAL REPORT
FEBRUARY, 1993

RC 019758

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PREFACE & ACKNOWLEDGMENT

This project was made possible through a grant from the Center for Rural Pennsylvania, a legislative agency of the Pennsylvania General Assembly. The primary outcome of this project is to determine the need, availability, and use of distance learning by rural school districts, and hopefully foster the development of partnerships among school districts, universities, businesses and government. It should assist the General Assembly in the decision-making process involved in funding distance learning projects, as well as in the development of plans for statewide technology efforts. A partnership was formed between the Rural Services Institute of Mansfield University and EPLER ENTERPRISES, Inc. in applying for and implementing the grant from the Center for Rural Pennsylvania.

An inventory was conducted of the technologies and programs currently being used by rural school districts in Pennsylvania. Their availability and use were assessed along with the districts' interest in implementing additional or new distance learning programming. Funding sources and programmatic services which could aid in the development of distance learning programs were researched and this information was shared with the school districts. Because this topic encompasses so many different aspects, this report and its recommendations are intended for many audiences, state government, Pennsylvania Department of Education, organizations critical to the delivery of programming, and Pennsylvania school districts.

In acknowledging the leadership needed to realize this project, it is important to note that collaboration and patience are necessary ingredients in the development of successful partnerships. The diversity of expertise provided through the Rural Services Institute, Mansfield University, and EPLER ENTERPRISES, Inc., clearly demonstrates that effort. We would especially like to thank all those agencies and organizations who so generously contributed information and guidance in this study: the Pennsylvania Department of Education's Division of School Library Media Services, Division of School Based Improvement, and Division of Teacher Certification; the Department of Education in other states, all the groups who submitted position papers, the Pennsylvania Association of Educational Communications Technology (PAECT), and the Pennsylvania Association of Supervision and Curriculum Development (PASCD).

February, 1993

In the area of acknowledgments, specifically, the direction of the project was provided through Jesus Ricardo Lucero, Ed.S, Project Director and faculty member of the Special Education Department at Mansfield University. Program specialist was Doris M. Epler, Ed.D, of EPLER ENTERPRISES, Inc. Data analysis and graphics were provided by Barry Brucklacher, Ph.D, faculty member of the Education Department at Mansfield University. Additional support was provided by Marilyn Bok, Director, Rural Services Institute (RSI), and research assistants Theresa M. Resotko and Aaron Kennedy. Layout and word processing capabilities represent the work of Tammy Wilson, support staff to the Rural Services Institute.

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Final Report

Teleteaching Distance Learning

I. ABSTRACT

This study was designed to determine the need for the use of distance learning in Pennsylvania's rural schools, particularly in the areas of higher mathematics, science, foreign languages, gifted, and special needs. The study also examined the types of distance learning programs and technology currently being used. A special emphasis was placed on the identification of factors that could enhance or inhibit the use of distance learning in rural schools. Regional meetings were held across the state to inform rural school administrators about the purpose of the study.

A literature search of public information was conducted. Surveys were developed and administered to two groups: rural school districts and urban/suburban school districts. A review of appropriate chapters in the Pennsylvania School Code was also conducted. Documentation, including the long range (5-year) plans that rural school districts submitted to Pennsylvania Department of Education (PDE), and distance learning Request for Proposals issued by PDE, was gathered and analyzed. Interviews were conducted with the heads of Pennsylvania state agencies and the Department of Education in 28 states. The interim data was shared with three educational organizations and input was obtained.

Satellite, cable, and public television are the major distance learning technologies being used, and SERC is the major satellite distance learning provider. While 112 responses indicated participation in some form of distance learning, the majority of respondents use programs in foreign language and higher mathematics. The largest enrollment is in Japanese. However, 340 responses indicated a need to participate in distance learning in the areas of higher mathematics, foreign languages, the sciences, gifted, advanced placement, elementary programs, and a variety of other courses. Based on a minimum of three students per response, this means that there could be at least 1,020 rural students who could possibly benefit by participation in distance learning but are being denied that opportunity.

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The examination of the School Code indicated that while distance learning is not recognized as such, no mandates prevent its implementation. Rural school administrators, however, feel the mandate requiring a certificated teacher serve as the distance learning classroom facilitator prevents their participation since their staffs are sparse and they do not have a certificated teacher to use. Therefore, they would like to use non-certified staff as the classroom facilitator. However, in order to participate in distance learning more fully, many rural school administrators also indicated a need for assistance in five major areas: (1) financial aid, (2) training for faculty, (3) technical assistance, (4) training for administrators, and (5) facility renovations.

Urban/suburban schools do not use distance learning as much as rural schools but they indicated a willingness to form partnerships with rural schools to assist them in the delivery of distance learning programs.

II. PROJECT SUMMARY

A. Summary of the Study Process

In the fall of 1992, the Center for Rural Pennsylvania released a Request for Proposals (RFP) in the area of distance education. The RFP was designed to determine the need for the use of distance education in rural school districts in the State of Pennsylvania, as well as the types of programs and technology currently being used. The RFP also requested that the areas of higher mathematics, science, and foreign languages be targeted to determine if there is a particular need in these areas for the use of distance education as well as other specialty areas such as gifted education and students in need of special services.

Based on the RFP, Mansfield University submitted a proposal that addressed those needs as well as expanding on the concept of developing partnerships between school districts, businesses, universities, and other agencies. To determine this information, specific goals and objectives were developed.

The research process began with a literature search to identify sources of funding school districts could possibly use for distance learning activities and equipment. This public information was gathered and indexed into different categories (e.g., corporate foundations, U.S. Department of Education). The guide provides information regarding the types of programs that will be funded and the purpose of the funding. The address and phone number of the funding source contact person is also provided.

Concurrently a literature search of current available distance learning programs was conducted. From this information a resource guide regarding distance learning courses and programming was developed. The guide contains a description of the program and its purpose, the fees involved, and the address and telephone of the distance learning provider. The information was indexed for quick access.

A survey was administered to determine what distance learning programs and technologies rural schools were currently using, and what programs they would like to begin, as well as their interest in becoming part of a partnership with other schools districts. A second survey was then sent to urban/suburban school districts to identify the distance learning programs and technologies they are using and to determine whether these districts would be interested in developing distance learning partnerships with rural schools.

Regional informational meetings were held at nine sites throughout Pennsylvania to explain the survey questions and to allow input from school administrators. Even though these meetings were sparsely attended, information was shared ranging from the types of technology and programs that are currently being used, to questions on how to begin distance education programs, and the possibility of establishing partnerships.

An examination of the long range (5-year) plans that were submitted by rural school districts to the Pennsylvania Department of Education was conducted. The focus of this examination was to determine whether districts were considering getting involved in distance learning activities for either their students or teachers some time in the near future.

A review of Chapter 3 (School Profiles), Chapter 5 (Curriculum Regulations), Chapter 6 (Vocational Education), and Chapter 49 (Teacher Certification) of the Pennsylvania School Code was done to determine what impact the codes would have on the development, implementation and evaluation of distance learning, as well as what codes would possibly inhibit these activities.

National and state education agencies were asked to submit copies of their position papers on distance education. A comparison of these papers was made to determine common aspects or conflicting positions. Although many agencies were contacted, only a few actually had formal position papers. However, several agencies indicated they supported distance learning education even though they did not have formal position papers, while others indicated they may be developing a position paper on distance learning in the future.

To determine the status of distance learning nationally, thirty-four states were randomly selected to receive a short survey of five questions. Twenty-nine states responded. Information was requested on certification requirements, role of non-certified personnel, line-item appropriation, percentage of satellite dishes to school buildings, and the top providers of distance learning programs.

The Pennsylvania Department of Education annually issues Request for Applications (RFA) for school districts to apply for funding to get involved in distance education. The requirements and criteria contained in the 1991-92 RFA and those in the 1992-93 RFA were compared and contrasted.

Two presentations regarding the process involved and the preliminary findings of this study were made: the first, to the combined conference of the Pennsylvania Association of Supervision and Curriculum Development (PASCD) and the Pennsylvania Association of Educational Communications Technology (PAECT), and the second, to the Political and Legislative Strategy Group of the Pennsylvania State Education Association (PSEA). Seventeen people attended the first session; all 17 held membership in PAECT and 4 also held membership in PASCD. Twenty-two people, all PSEA members, attended the second session. Comments from those attending were collected and summarized.

B. Need for the Project

Students who attend small rural schools may not have the same educational opportunities as those provided to students who attend urban and suburban school districts. Often being denied access to courses that would enhance their educational programs, students from small rural schools enter higher education at a distinct disadvantage. The courses these students may have difficulty in obtaining are foreign languages, higher-level mathematics, the sciences, and other courses or programs such as gifted, that differentiate themselves from traditional core courses. The reasons for this deficiency are many. They range from lack of qualified teaching staff, difficulties in attracting staff to rural areas, maintaining and upgrading teacher skills, and a lack of funds to hire a qualified teacher for a limited number of students needing or requesting a particular class.

Our world is one of increasingly rapid social and technological change. We can no longer afford to ignore the educational needs of our rural students to function in this type of society on an equal basis. Technology has the power to enable the incorporation of necessary courses into rural schools, thereby helping rural students have access to a more equitable education. Examples of such programs are TI-IN Network, Satellite Educational Resources Consortium (SERC), Oklahoma State University (OSU), Mansfield University National Teleteaching Project, National Instructional Satellite Services (NISS), PENNARAMA, Riverview Teleteaching Program, and Massachusetts Corporation for Educational Telecommunications (MCET).

Our schools are an extension of our communities. The use of telecommunication goes beyond the area of education. Through the use of the technology, rural areas may be able to have the same advantages of urban and suburban communities while maintaining important cultural elements of their lifestyles (Price Waterhouse, 1992). This study looked at the possibility of serving the multiple needs of the community through school/community partnerships (e.g., the Bloomsburg project).

There is a need to look for ways to make better use of our schools beyond regular school hours and to share the costs of installation, operation, and maintenance of the new technologies. To provide the needed technologies in rural areas, rural areas must look at aggregating demand. Government, health providers, businesses, emergency services, and education could provide sufficient demand to attract investment in these technologies by market forces and/or government investment.

The needs of Pennsylvania rural schools for distance learning, and the associated problems and concerns that come with the implementation of the technology, must be identified. In addition, state policies and regulations regarding the delivery of distance learning courses to rural students must be examined. However, access to distance learning will only be meaningful if administrators and teachers understand its implications. Therefore, the pedagogical and administrative needs involving the delivery and implementation of distance learning must also be identified. Current technology permits school districts to share distance learning personnel and programs. This study examined whether such partnership agreements exist in Pennsylvania, as well as the perceived need to create ones that could be beneficial to all parties involved.

This study gathered data on distance learning needs, its use, and availability from school districts, distance learning providers, and educational and governmental organizations. Studies, position statements and viewpoints from the Public Broadcasting System, cable television, commercial television, Pennsylvania telephone association, and other pertinent providers and educational organizations were considered. This study provides legislators and educators with accurate information to make appropriate decisions to help satisfy rural school districts' needs for distance learning, allowing rural school districts to close the educational equity gap between themselves and their counterparts in urban/suburban areas.

C. History of Distance Learning in Pennsylvania

The Pennsylvania Department of Education (PDE) and the school districts within the Commonwealth have had a long history in utilizing distance learning technologies to fill their curricular and in-service training needs.

1. Broadcast TV

Broadcast television was the first major technology that schools used for distance learning. PDE has been involved in purchasing broadcast and duplicating rights for educational television programs since the 1960s. At one time, PDE was also able to offer grants to public broadcasting stations for developing specialized programs and other efforts to encourage the use of educational television by schools in Pennsylvania.

The 1992-93 state budget contained a line item of $168,000 for the purchase of broadcast and duplicating rights for educational television programs. However, in August 1992, a temporary hold was placed on the expenditure of these funds. Local Instructional Television (ITV) stations provided the funding necessary to keep some of the programs on the air for the 1992-93 school year.

2. Audiographics (Teleteaching): Two-Way Audio; One-Way Video

In 1985, PDE received a proposal from Dr. Dennis Wydra, Mansfield University, to institute a pilot teleteaching project within the geographic area of the university. The idea behind this effort was to provide an inexpensive way for rural schools to share teachers. The technology allowed students and teachers a system to communicate with one another (two-way audio). In addition, students at off-sites could view lessons being taught by the teacher via their computer screens (one-way video). Teachers could generate information that was carried across telephone lines to the students' microcomputers.

PDE funded this pilot project (approximately $47,475) and staff of the Division of School Library Media Services of the State Library served as consultants and monitors. For an additional two years, PDE increased its financial support of the teleteaching project; $250,000 the first year and $125,000 the second.

The administration of the project was then transferred to the Riverview Intermediate Unit where it is still housed. The program became a self-supporting operation and Dorothy Haydu is currently the administrative officer in charge of the teleteaching program.

3. STAR SCHOOLS

In 1986, the Organization of State Broadcast Executives (OSBE) began to pursue the idea of forming a partnership for the delivery of satellite education into schools in the United States. The organization was to be funded through the assessment of membership fees. The Pennsylvania Public Television Network and the Pennsylvania Department of Education, each contributing 50 percent of the membership fee, joined this effort. As of 1992-93, the membership fee for Pennsylvania is a total of $50,000.

Shortly thereafter, all those state partnerships interested in applying to the Federal government for STAR SCHOOLS funding formed a group entitled Satellite Education Resource Consortium (SERC). A grant application was submitted to the Federal government and SERC received funding for the two-year period October 1, 1988, to September 30, 1990.

In January, 1989, PDE initiated a pilot STAR SCHOOLS project with seven school districts that already had satellite equipment installed. PDE provided the funds necessary to pay for student enrollment fees and textbooks for this brief period of time. The rural schools involved in the pilot included Millcreek Township, Chestnut Ridge, Punxsutawney Area, Meyersdale, and Great Valley. Chester County Intermediate Unit and the Philadelphia Public Schools also participated in the SERC pilot project. At the time, all students were registered in either Japanese or Probability and Statistics.

By spring of 1988, Pennsylvania schools could purchase satellite dishes for $7,000 on a 50/50 basis: the district paid 50 percent and the other 50 percent was provided by SERC from Federal STAR SCHOOLS funds. Forty-four Pennsylvania schools were able to install dishes by June, 1989. Some schools were also able to purchase playback equipment.

However, in order to be considered eligible to receive funds to purchase satellite dishes and/or receive equipment, school districts were required to submit a brief application to

PDE. The district had to indicate what educational need was to be met by the installation of a receiver dish and make a commitment to provide 50 percent of the funds for the hardware.

To make it easier for schools to afford a satellite dish, during 1989-90, schools were able to purchase satellite and playback equipment on a 75/25 basis, with SERC paying the larger share from Federal STAR SCHOOLS funds. Twenty-three schools were granted funds for this purpose. This lowered the cost of a satellite dish for each school to about $1,700. All 67 schools participating in SERC were required to pay their own student registration and textbook fees, as well as the cost to access teacher in-service programs. Meanwhile, additional schools installed satellite dishes that were paid for through other means.

During 1990-92, SERC was not able to provide funds to schools to purchase distance learning equipment since SERC was ineligible to apply for additional STAR SCHOOLS funding. However, the United States Department of Education announced that established distance learning consortia were able to apply for funds for the 1992-94 funding cycle. Therefore, in June, 1992, SERC submitted a STAR SCHOOLS proposal and Pennsylvania was a member of the consortium. In October, 1992, SERC was awarded a STAR SCHOOLS grant in the amount of $2.3 million, considerably less than what they applied for. It is not known at this time how much, if any, will become available for Pennsylvania schools to offset the cost of participating in SERC or to purchase equipment.

In addition to the above funding, SERC has also applied for funds from the National Telecommunications Information Administration (NTIA) and was awarded $500,000. It is not known at this time how Pennsylvania will benefit from this funding source.

4. State Funds for Distance Learning

In the 1991-92 state budget, the Pennsylvania Department of Education received $350,000 for distance learning. On August 19, 1991, PDE announced a Request for Applications (RFA) to permit schools to apply for funds to get involved in distance learning. The RFA required schools to define the purpose of the proposal, a project overview, a plan of action, budget sheets, evaluation plans, and long range plans regarding how the project would be continued after funding ceases. Schools were required to provide a 25 percent in matching funds (See Appendix P for a copy of this RFA).

The following schools were recipients of distance learning grants for the 1991-92 school year:

1. Arin Intermediate Unit 28, Indiana County: $55,256 for Blairsville-Saltsburg, Homer-Center, Marion Center Area, Penns Manor Area, and United School District to provide students with televised courses through an agreement with Indiana University of Pennsylvania. **(All of these districts are considered rural schools.)**

2. Seneca Six Consortium, Potter and McKean counties: $123,050 for a program to provide via satellite, courses in math, science, and foreign languages to students in the Austin Area, Coudersport Area, Northern Potter, Oswayo Valley, Port Allegheny Area, and Smethport Area. **(All of these districts are considered rural schools.)**

3. Schuylkill Intermediate Unit 29, Schuylkill County: $19,517 for the development of a plan for distance learning activities in each of the county's 11 school districts and to connect four of the districts to Pennsylvania Science Network (PANET), an inter-active science network. **(All of these districts are considered rural schools.)**

4. Central Greene School District, Greene County: $18,750 to purchase satellite equipment to provide students with courses in foreign languages, mathematics and science. **(Central Greene is a rural school.)**

5. Harmony Area School District, Clearfield County: $14,832 to purchase satellite equipment to provide students with courses in advanced mathematics and foreign languages. **(Harmony is a rural school.)**

6. Riverside Beaver County School District: $25,000 to purchase satellite equipment to receive programs for students in gifted and talented programs. **(Riverside Beaver is a rural school.)**

7. Salisbury-Elk Lick School District, Somerset County: $10,079 for satellite equipment and an interactive computer system to provide students with foreign language and physics courses. **(Salisbury-Elk Lick is a rural school.)**

8. Towanda Area and Troy Area school districts, Bradford County: $21,543 for teleteaching computer equipment to provide 9th-12th grade students with a shared study skills class. **(Both of these schools are rural.)**

9. Philadelphia City School District, Philadelphia County: $25,000 for satellite equipment that will enable the district to receive courses in calculus, conceptual physics and specialized foreign languages such as Japanese, Arabic, Swahili, Russian, and Mandarin Chinese from the Black College Satellite Network in Washington, DC.

On September 17, 1992, PDE announced the second Request for Proposals from schools interested in distance learning opportunities. This time schools could apply for up to $100,000 to provide equity in access and quality of student courses and teacher/staff development offerings. School districts were encouraged to cooperate with other districts, educational agencies, and businesses to develop distance learning partnerships. Schools were once again required to provide a 25 percent match of funds (See Appendix P for a copy of this RFA).

On December 31, 1992, PDE announced that the following agencies were recipients of distance learning funds for the 1992-93 school year:

1. Blair and Clearfield Counties: Altoona Area Distance Learning Consortium - $80,000 for Altoona Area, Glendale, Claysburg-Kimmel, Spring Cove, Bellwood-Antis, Tyrone, Hollidaysburg, and Williamsburg School District to provide students with courses in foreign language, advanced mathematics, science and humanities, and to provide staff development and community programming. It is a unique project which will create a regional interactive video system using local cable television lines and public telephone service.

Public libraries and other educational and community service agencies will participate. **(All of these districts are considered rural schools.)**

2. Susquehanna County: Blue Ridge School District - $27,703 to purchase distance learning equipment to provide students with satellite science courses. **(Blue Ridge School District is a rural school.)**

3. York County: Dover Area School District - $9,500 to purchase satellite equipment to provide X-Press Information Service, a computer bulletin board for social studies courses. **(Dover Area School District is a rural school.)**

4. Adams County: Lincoln Region Distance Learning Network - $80,000 to establish a pilot two-way interactive telecommunications fiber optic network between Conewago Valley and Upper Adams School Districts. The school districts will share advanced placement courses (calculus, physics, English and European History) and German and Latin courses. Several years of research and design have gone into the planning phase of this network which can be expanded to link 23 other school districts, two vocational-technical schools, and locally-based institutions of higher learning. **(Both of these districts are considered rural.)**

5. Clarion, Clearfield, Forest, Jefferson and Venango counties: Riverview Intermediate Unit #6 - $27,000 to purchase a data bridge (equipment to allow students at different locations to interact with the teacher simultaneously) to improve educational opportunities for students by providing increased access to curricular offerings. **(All schools involved are considered rural.)**

6. Somerset County: Shanksville-Stoneycreek School District - $12,841 to provide satellite courses for student enrichment, French, and staff development. **(Shanksville-Stoneycreek School District is rural.)**

7. Columbia County: Southern Columbia Area School District - $32,957 to provide satellite courses in science, foreign languages, staff development, and upgrade existing equipment. **(Southern Columbia Area School District is a rural district.)**

8. Bedford County: Tussey Mountain School District - $15,573 to purchase interactive equipment and provide advanced placement courses in Russian, Japanese, pre-calculus, probability and statistics, and discrete math. **(This school district is considered rural.)**

5. Additional Activities Conducted by PDE to Encourage Schools to Use Distance Learning

1. The School Library Media Services Division of the State Library developed an informational distance learning database that schools can access through PENN*LINK, an electronic message system. This database provides information about various teleconferences that are available for teachers, information about distance learning providers and educational networks in other states, as well as "newsy" pieces of information about what is happening in distance learning.

2. PDE staff have participated in various conferences and seminars to share information in the field, not only about the distance learning grants, but also general information about distance learning technologies, courses, and costs.

3. In November, 1992, PDE staff developed a short informational piece entitled, "Commonly Asked Questions about Distance Learning in Pennsylvania." This piece will be shared with educators and others interested in distance learning (See Appendix I).

4. Mr. Wally Leech, Distance Learning Coordinator, Pennsylvania Department of Education, and Nancy Aponick, Director of Educational Services, Pennsylvania Public

Television Network, represent their respective agencies at SERC Board meetings where the interests of Pennsylvania's schools and educators can be considered.

D. Review of the Project's Goals and Objectives

Goal:

The goal of this study was to provide information about the need of rural schools for distance education programs, particularly in the areas of foreign languages, higher-level mathematics, the sciences, and other subjects, to assess the gap between current distance education resources available to Pennsylvania's rural schools and the need for these programs, and to recommend ways state policy can help satisfy this need.

Objectives:

Objective 1: To determine the need of Pennsylvania's rural school districts for distance learning programs in foreign languages, mathematics, the sciences, and other subjects, as well as those needed for the gifted.

Objective 2: To inventory and describe the distance learning programs available through local school districts, the Pennsylvania Department of Education, the Federal Government, private companies, and nonprofit organizations, to identify the technologies needed to use these programs as well as all costs involved, and to determine reciprocal certification limitations relating to these programs.

Objective 3: To inventory distance learning programs currently being used by Pennsylvania's schools and to compare the level of use to the need.

Objective 4: To document the positions held by educational agencies and organizations on distance learning, including, but not limited to, the Pennsylvania Department of Education, the Pennsylvania State Education Association, Pennsylvania

Association of Rural and Small Schools, National Education Association, the Parent Teacher Association, and the Federal Department of Education.

Objective 5: To determine how state policies can help satisfy rural school districts' need for distance learning education in foreign languages, mathematics, the sciences, and other subjects not presently being met by existing programs.

Objective 6: Identify sources of funding and/or resources that may assist rural schools in implementing distance learning programs in foreign languages, mathematics, the sciences, and other subjects/programs.

E. Research Methodology

1. Development of the Questionnaires

Two surveys were developed in order to gather data needed for this study. The "Distance Learning Needs Assessment" instrument is an 18-item self-administered questionnaire designed to assess distance learning needs in Pennsylvania's rural school districts (See Appendix E). This questionnaire was developed by R. Lucero, Project Director; D. Epler, a distance learning consultant (EPLER ENTERPRISES Inc., Hummelstown, PA); and M. Bok, Director of the Rural Services Institute, Mansfield University. This questionnaire was mailed to the superintendents of 385 rural school districts in Pennsylvania in June, 1992.

All of the questionnaire items called for short, check-mark responses, but most items also included an "other" category to permit respondents to indicate other responses that were not anticipated. In addition, respondents were asked to add any comments they wanted to about distance learning. Respondents were asked to choose more than one response per question where this was applicable. It was estimated that participants would need 5-10 minutes to complete the questionnaire.

A cover letter introducing the study and its purpose was included with each questionnaire along with a list of distance-learning informational meetings that were to be held around the state to provide rural districts with more information on distance learning programs, available funding, and equipment support. Attendees at these meetings would receive a bibliography of references and funding sources for distance learning. Recipients were asked to return the completed questionnaires at the meetings in their areas, or if unable to attend a meeting, then to use stamped, self-addressed envelopes to return the questionnaires to Mansfield University. To increase the number of returns, several follow-up procedures were used: (1) a postcard was sent to remind recipients that their completed questionnaires had not been received; and (2) phone calls were made to recipients asking for the return of the questionnaires. Ultimately, 158 (41 percent) of the questionnaires were returned.

Since this instrument was designed to gather data only this one time, and from a limited population (i.e., superintendents of rural Pennsylvania school districts), it is difficult to infer reliability. An attempt was made to increase the validity of the questionnaire by using a development panel which included people with expertise in distance learning and expertise in questionnaire construction. The results of this questionnaire were also compared to the school districts' 5-year plans on file at PDE.

The second instrument developed was a questionnaire for urban/suburban school districts which was sent to 115 urban/suburban school districts throughout Pennsylvania. The format used for this questionnaire was the same one used for the rural questionnaire (see Appendix E). However, it consisted of only eight questions regarding technologies and programs that are currently being used and inquired concerning the respondents interest in forming partnerships. Follow-up procedures were conducted and ultimately 47 school districts responded for a total response rate of 41 percent. Because the main focus of this study was on rural school districts, no attempt was made to determine the validity of this urban/suburban school district data, as was done for the rural school district data. This information was gathered from the urban/suburban school districts primarily to determine their interest in developing partnerships with rural school districts.

2. Analysis of the Data

Since most items on the questionnaire were questions that could have more than one value for an individual case, the data from the completed questionnaires were analyzed primarily with the "MULT RESPONSE" procedure using SPSS-X (Release 3.0) on the Mansfield University mainframe computer.

3. Literature Search of Funding Sources

Data about possible funding sources were obtained through public information and categorized under different funding headings for quick reference. The headings are corporate foundations, cable television programming, U.S. Department of Education funding, Federal agencies, telephone companies and foundations. The information includes addresses, phone numbers, purpose of the funding, and eligibility requirements.

4. Literature Search of Current Distance Education Programs

A literature search was conducted to find information that pertained to distance education programs with an emphasis on rural information concerns. While by no means a comprehensive list of all literature on distance learning, the articles listed give a broad overview of the information available. The information is categorized under different headings for quick reference.

5. Regional Informational Meetings

Nine regional meetings were held at the State System of Higher Education Universities throughout the state of Pennsylvania to answer questions about the survey and distance learning, and to allow input from school administrators on distance learning. The information shared ranged from the types of technology and programs that the districts are currently using, questions on how to begin distance education programs, and the possibility of establishing partnerships. Even though the meetings were sparsely attended, pertinent information was shared and contacts were made by neighboring school districts for the establishment of partnerships.

6. Five-Year Plan Analysis

Up to March 12, 1992, when the State Board adopted a revised Chapter 5, all school districts in Pennsylvania were required to develop long-range plans and submit them to the PDE for approval. These plans, which encompassed a five-year period, had to be evaluated by the district in mid-term, as well as in the final year. The evaluations were submitted to PDE. After PDE approved the final evaluation, the district then began the planning process once again and developed a new plan.

All long-range plans are kept on file in PDE. A review of the long-range plans for the rural schools surveyed in this study was made. Special attention was paid to the section entitled "Individual Building Action Plans" to determine whether or not the district planned to utilize any form of distance learning to respond to educational or training needs. See Appendix B for the detailed results of the examination of the long-range plans.

Most of the plans developed before 1990 did not refer to distance learning as such. However, many of the plans explained in detail what they wanted to do and why, but not all of them explained how things would be accomplished. For instance, a district could have mentioned they wanted to investigate providing Advanced Placement, Honors, or additional foreign language courses, but they may not have specified the method they eventually chose. Distance learning may actually have been used to fulfill some of these needs.

Many of the earlier plans focused on increasing writing skills, enhancing self-esteem, increasing career awareness, increasing science and technology, and strengthening the writing program. Most districts indicated a need for using computers in a variety of ways. While the plans were strong in the area of computer technology, many indicated a need to investigate the use of advanced technology across curriculum areas.

When the State Board of Education adopted the new Chapter 5 Regulations, a different emphasis was placed on the planning process. The Department is no longer requiring schools to meet a certain number of classroom hours for each subject area. The focus has now been placed on student learning outcomes. The State Board is defining "what" must be included in the curriculum; the district may decide "how" the curriculum will be delivered and they may use a variety of options to determine student achievement.

School districts are now required to develop a new six-year strategic plan that will define how they plan to deliver its educational program. The first year of the [illegible] year planning cycle is known as the planning period – the period in which the plan is to be prepared. The second through sixth years of the cycle are years in which the implementation of the plan takes place. A Mid-Point Progress Report which includes a mid-point revision of the strategic plan is to be prepared during the third year of the planning cycle.

A planning committee, composed of school directors, teachers, school administrators, parents, students, other school personnel, and other business and community representatives will be responsible for developing a strategic plan that includes ten specific activities:

1. the development of a mission statement,
2. the development of district goals,
3. the development of learning outcomes statements,
4. a description of graduation requirements criteria,
5. the development of planned courses,
6. planning and conducting [illegible] comprehensive needs analysis,
7. a list of priorities for action planning,
8. the development of specific action plans,
9. the development of an assessment plan,
10. the preparation of a professional development plan.

Specific items that must be reported in the plan include:

1. the process used to develop the strategic plan,
2. the district's organizational structure,
3. a description [illegible] the resources to be used to achieve the mission, goals and student learning outcomes,
4. a mission statement,
5. a list of the goals,
6. a list of student learning outcomes,
7. a list of the criteria to be used to determine achievement,
8. a list of the priority goals,

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9. action plans for each of the priority goal areas,
10. a description of how the planned courses and the instructional practices will be used to achieve the mission, goals, and student learning outcomes.

NOTE: A copy of Pennsylvania Strategic Planning Program: Guidelines and Instructions can be found in Appendix J.

7. Interviews with Heads of State Agencies

Distance learning can and should be used by agencies and organizations other then just school districts. Partnerships between school districts and agencies such as the Health and Human Services Department can successfully allow for training and information sharing before and after the school day, holidays, summer, and other times that the technology is not being used by the school district. A survey was taken by contacting the department heads of other state agencies to see if they currently use any forms of distance learning. Those using distance learning were asked the purpose, the types of programs used, and the technology they currently use or would like to begin using.

8. Review of Chapters 3, 5, 6, and 49 of the School Code

An examination of Chapter 3 (School Profiles), Chapter 5 (Curriculum Regulations), Chapter 6 (Vocational Education), and Chapter 49 (Teacher Certification), of the Pennsylvania School Code was conducted to determine if their requirements either enhance or inhibit the delivery of distance learning to Rural school districts and the possible implications.

9. Requested Position Papers from National and State Education Agencies

Position papers were requested from national and state educational agencies to determine their positions on distance education. A comparison was made of the important aspects of each position paper.

10. Status of Distance Learning in Other Areas

Thirty-four states were randomly picked to gather information on distance learning based on a survey with five questions. Twenty-nine states responded. The questions covered certification requirements for distance learning teachers, the use of non-certified staff serving as facilitator in distance learning classrooms, line-item appropriations for distance learning, the number of public school buildings in their state and what percentage have satellite dishes, and the top three providers of distance learning programs to their schools.

11. Review of 1991-92, 1992-93 RFAs

The Pennsylvania Department of Education issues Requests for Applications (RFA) annually for school districts to apply for funding to become involved in distance learning. The requirements and criteria contained in the 1991-92 RFA and those in the 1992-93 RFA were compared and contrasted and recommendations were made.

12. Presentation of Interim Data

Two presentations regarding the process used to conduct this study and a report on the preliminary findings were made: the first, to the combined conference of the Pennsylvania Association of Supervision and Curriculum Development (PASCD) and the Pennsylvania Association Educational Communications Technology (PAECT), and the second, to the Political and Legislative Strategy Group of Pennyslvania State Education Association (PSEA). The information shared was the interim data that was collected. Comments were requested and that information was collected and summarized. Seventeen people attended the first session; all 17 held membership in PAECT and 4 also held membership in PASCD. Twenty-two people, all PSEA members, attended the second session.

III. RESULTS

A. Rural School Districts' Needs in Distance Learning

1. Interpretation of Rural Survey Responses

School District Using Distance Learning Programs

From the surveys sent to rural school districts, 80 districts (51%) responded they currently use distance learning, while 78 districts (49%) said they did not. However, when talking with superintendents on the telephone, it appears the use of broadcast television is viewed by some as distance learning while others only consider it supplemental. Therefore, the number of districts actually using some form of distance learning may actually be larger.

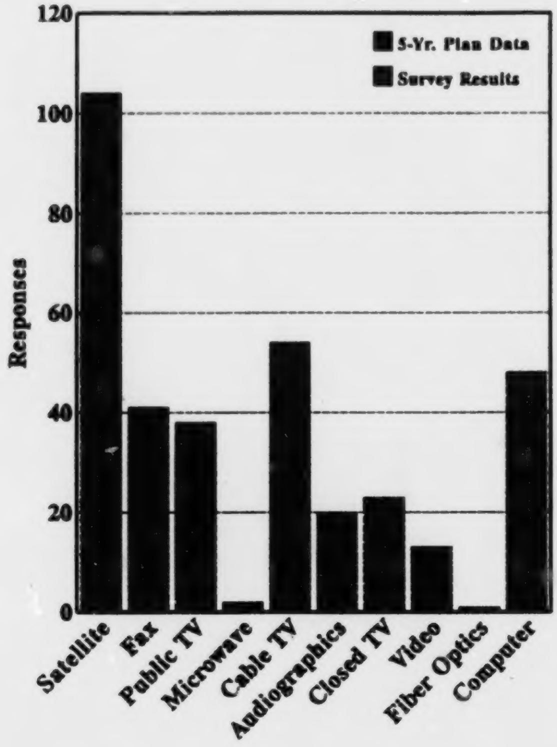
Technologies Used for Distance Learning

Fig. 1 shows the data gathered by the survey and the analysis of Five-Year Plans of responding rural school districts. When reviewing supplemental data, it became obvious many school districts did not report the fixed satellite dishes that were installed as a result of participation in Channel One. Satellite dishes installed through the SERC program or dishes installed through other funding sources are steerable and therefore schools can receive many channels. Channel One satellite dishes are fixed and can only receive programs from Whittle Communications—this may account for the under-representation of satellite dishes in the survey.

Distance Learning Services Used by Districts

SERC is the largest provider of formal programs in Pennsylvania. This can be attributed to the partnership formed by the Pennsylvania Department of Education and the Pennsylvania Public Television Network to become members of the SERC organization. As a result, many schools were able to install satellite dishes at a greatly reduced rate. In addition, the partnership also provided advice and counsel in matters dealing with site preparation, satellite installation, and course registration and delivery. School districts wanting to use other distance learning services had to contact providers on their own.

Fig. 1 Technologies Used by Rural School Districts



Cable Program Services Used by Districts

CNN Newsroom (CNN), C-Span, and Arts & Entertainment (A&E) cable programs are used more frequently than any others. This could be a result of the widespread exposure these programs have through community cable access. Some rural communities still do not have access to cable programs and therefore cannot participate in any cable offerings.

Satellite Services Used by Districts

Some confusion may have been caused by the way this question was posed, particularly with the inclusion of ITV. There may have been a discrepancy between what some districts considered a service or program. Of the 106 satellite dishes accounted for in the survey, 43 of them are being used for Channel One. Responses for PANET, a Pennsylvania on-line science database, may have been inaccurate since the survey was sent before the 1992-93 registration took place. Membership in PANET appears to be constantly growing as more science educators become aware of this service.

Districts Involvement in Distance Learning Partnerships

Based on the survey, 27 districts are currently participating in one or more distance learning partnerships, mainly with universities, intermediate units, and other school districts. Only one district reported a partnership with business. It is encouraging to note that 306 rural school districts are currently participating in the resource-sharing program, ACCESS PENNSYLVANIA. In addition, 84 rural school districts are providing on-line database searching services for students and teachers under the LIN-TEL program.

Responses to a related question (#14) on the survey indicated 28 respondents (88%) of the rural school districts were interested in forming partnerships, while 11 respondents (8%) were not interested and 7 respondents (5%) were not sure.

Two similar questions, #17 and #18, respectively asked whether districts were willing to share distance learning technologies with: (a) community and/or state agencies; and (b) other school districts. Most of the school districts, 136 out of 137 who responded, were willing to share with community and/or state agencies. Likewise, 138 out of 143 school districts were willing to share with other districts.

Courses Taught Through Distance Learning

Table 1 shows the data gathered by the survey of responding rural school districts. Only two districts reported using distance learning for Spanish. This may be due to the fact many Pennsylvania schools may have full-time Spanish teachers. However, the enrollment in Japanese is relatively high, perhaps due to the lack of certified Japanese teachers. In addition, there appears to be an interest in Latin and World Geography. It should be remembered that distance learning course selection can be affected by what is being offered within the regular curriculum, what is offered by formal distance learning providers, and the level of student interest.

Table 1

COURSES TAUGHT THROUGH DISTANCE LEARNING	Number of Responses	% of Total Responses	% of Respondents
HIGHER MATHEMATICS (10 respondents)			
Calculus	5	45.5	50.0
Statistics	6	54.5	60.0
FOREIGN LANGUAGES (28 respondents)			
Spanish	2	4.8	7.1
Russian	14	33.3	50.0
Japanese	23	54.8	82.1
German	3	7.1	10.7
SCIENCES (6 respondents)			
Physics	5	71.4	83.3
Chemistry	1	14.3	16.7
Biology	1	14.3	16.7
OTHERS (18 respondents)			
Latin	6	26.1	33.3
Economics	4	17.4	22.2
World Geography	6	26.1	33.3
Psychology	1	4.3	5.6
Medical Technology	2	8.7	11.1
Pascal	2	8.7	11.1
Advanced Math	2	8.7	11.1

Note: The first column of percentages is based on the number of total responses and always sums to 100. The second column of percentages is based on the number of respondents.

Special Programs Presently Offered Through Distance Learning

Currently there are very few distance learning programs for special needs and elementary students. Nine school districts reported having gifted courses, 9 reported advanced placement courses, 4 reported elementary programs and 2 reported special needs programs.

Table 2

COURSES DISTRICTS INTERESTED IN STARTING	Number of Responses	% of Total Responses	% of Respondents
HIGHER MATHEMATICS (63 respondents)			
Algebra	18	19.8	28.6
Trigonometry	7	7.7	11.1
Calculus	22	24.2	34.9
Statistics	44	48.4	69.8
FOREIGN LANGUAGES (94 respondents)			
Spanish	10	5.1	10.6
Russian	57	29.2	60.6
Japanese	72	36.9	76.6
French	16	8.2	17.0
German	40	20.5	42.6
SCIENCES (51 respondents)			
Physics	13	15.1	25.5
Chemistry	10	11.6	19.6
Biology	30	34.9	58.8
Environmental Study	33	38.4	64.7
OTHERS (13 respondents)			
Latin	4	28.6	30.8
Economics	3	21.4	23.1
World Geography	1	7.1	7.7
Other Languages	1	7.1	7.7
Pascal	1	7.1	7.7
Sciences	1	7.1	7.7
Genetics	1	7.1	7.7
Technology	2	14.3	15.4

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Distance Learning Courses Taught That Districts are Interested in Starting

Table 2 indicates the large interest in providing foreign languages by distance learning. This interest might be attributed to the requirement in the revised Chapter 5 Curriculum regulations for school districts to provide two foreign languages.

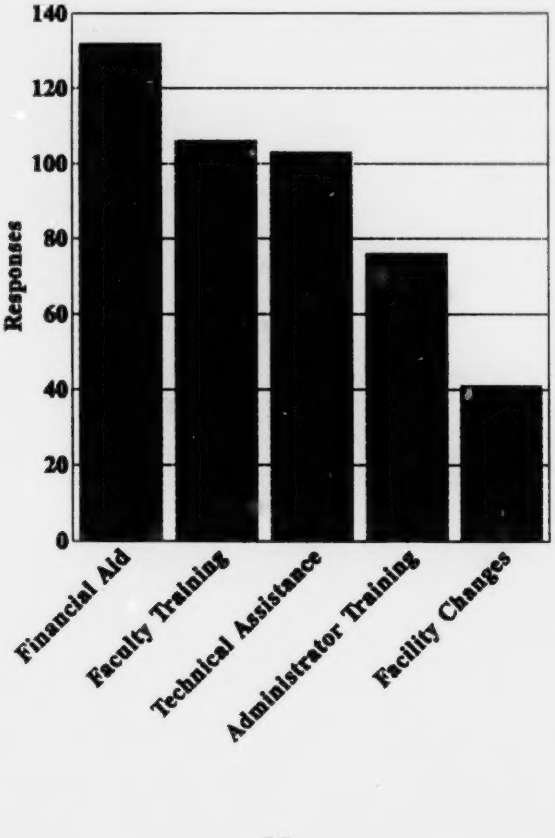
Special Programs Districts Would Like to Obtain Through Distance Learning

There appears to be unmet needs for distance learning in the areas of gifted, advanced placement, elementary programs, and special needs.

Assistance Needed to Install, Monitor, and Maintain Distance Learning Programs?"

Fig. 2 indicates the greatest area of need is financial aid, but it is also obvious that school districts need assistance in all areas.

Fig. 2 Assistance Needed for Distance Learning Programs



In-service Programs Needed to Implement a Distance Learning Program

Table 3 shows the responses indicate a great need for the education of faculty regarding all facets of distance learning.

Table 3

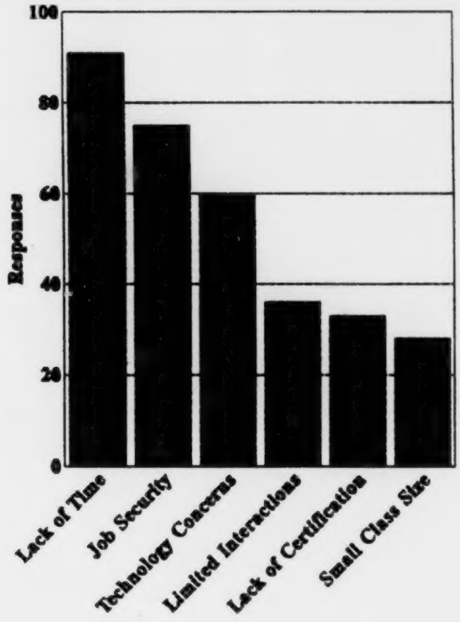
IN-SERVICE PROGRAMS NEEDED (149 responses)	Number of Responses	% of Total Responses	% of Respondents
Available Programs	113	19.6	75.8
Changing Roles of Teachers	110	19.1	73.8
Program Administration	97	16.8	65.1
Explaining Distance Learning	93	16.1	62.4
Equipment Maintenance	84	14.6	56.4
Unfamiliar Materials	79	13.7	53.0

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Faculty Concerns About Starting Distance Learning Programs

Fig. 3 indicates administrators thought their faculties were largely concerned with the lack of time, job security, and technology concerns.

Fig. 3 Faculty Concerns About Starting Distance Learning Programs



Concerns Regarding Staffing of a Distance Learning Classroom

Funding to hire a teacher for a rural Pennsylvania distance learning classroom appears to be a major concern. This may be due in part to current Pennsylvania regulations which require the presence of a certified teacher in the distance learning classroom. The majority of other states polled as part of this study permit non-certified staff to serve as classroom facilitator (see Chart A, Section III.E.4).

Means of Communicating the Impact of Distance Learning to Parents

Only 25 school districts (17%) plan to use cable to disseminate information about distance learning to parents. Most districts indicated that they intend to use print-based materials to inform parents.

Reasons Districts Discontinued Distance Learning Programs

The survey found that 45 school districts had been involved in distance learning but discontinued the programs. The major reason cited for discontinuing distance learning programs was funding problems.

2. Results of the Five-Year Plan Review

The information gathered from the current five-year plans and membership lists of ACCESS PENNSYLVANIA, LIN-TEL, the Pennsylvania Public Television Network, various vendors, and other sources demonstrated that most school districts are willing to use technology within the teaching/learning process. Refer to Appendix B for a summary of data from the school districts' five-year plans.

However, from reviewing the long-range plans, and conducting telephone interviews with many superintendents and principals, the barriers that stand in the way of implementing technology were also recognized. Some observations made after reviewing the plans and a listing of the barriers that stand in the way of implementing distance learning technology follows.

Observations:

- The need for a knowledgeable person on the staff to manage the technology.

- The need for additional funds to purchase and install equipment that can be used for distance learning programs.
- Some rural school administrators indicated they feel "left out" of most of the policy making decisions that affect them.
- There seems to be mixed feelings regarding the use of Channel One. Some administrators view Channel One as distance learning, while others do not. Many of the administrators admitted the only reason they agreed to use Channel One was for the equipment that came with the program. Some administrators adamantly opposed Channel One in their schools and are using other programs in its place. Only 12 percent of rural schools are participating with Channel One.
- Many administrators indicated their involvement in ACCESS PENNSYLVANIA led them to investigating the use of other educational technologies. Eighty-one percent of the rural schools surveyed are involved in the ACCESS PENNSYLVANIA program.
- Only 24 percent of the rural schools are members of their local public television station.
- Twenty-eight percent of the rural schools have satellite dishes. However, a few administrators indicated the satellite is rarely used and some didn't know whether it was still functional.
- Many of the newer five-year plans had goals that focused on technology. It will be interesting to investigate these schools several years from now to determine how well they were able to meet these objectives.
- Many rural schools are very active in using technology to enhance their educational programs.

Barriers:

- The need for staff development programs so teachers and administrators understand the technology and the pedagogy required to use it appropriately.

- The need for the administrators themselves to learn more about the technologies that are available, what courses are offered, and the costs involved.
- The need for more information concerning the impact that distance learning has on student achievement.
- The need for the Pennsylvania Department of Education to take a stronger leadership role in implementing distance learning programs.
- The need for legislators to make distance learning a priority.
- The need for more statewide access to teacher development programs that are delivered via satellite.
- The need for distance learning programs that focus on unique Pennsylvania needs such as outcome-based learning and new regulations that affect the operation and management of the schools.
- Some rural schools feel PDE has placed too many restrictions on them. For instance, they feel the requirement to have a certified teacher serve as the distance learning facilitator with the students places an unfair burden on them since they do not have large faculties and, therefore, they have no certified person to put with the several students in the distance learning classroom.
- Rural school administrators expressed a need to have a staff person at PDE whose primary responsibility will be to serve rural schools, particularly in the area of educational technology.
- Some administrators indicated the reason they were not participating with their local public television stations was the per-student membership fee.

Federal Government Recommendations:

- The regulations in the Consent Degree governing the break-up of AT&T should be re-examined to determine whether the restrictions placed on the provision of information services or the manufacturing of telecommunications-related products is hindering the growth of a national telecommunications system that would allow public schools to participate in distance learning more cost-effectively.

- Strict attention should be paid to the future of the Internet system so public schools can participate in all of its advantages in the most cost-effective manner possible.

Pennsylvania State Legislature Recommendations:

- The State Legislature should develop a statewide plan that takes advantage of the technology that is currently in place and focuses on what needs to be done to expand access to distance learning technologies for all of its residents.
- The Pennsylvania Department of Education's line item in the state budget for distance learning must be dramatically increased if Pennsylvania is to remain competitive in the education of its young people.
- The Legislature should consider the recommendations made regarding Chapters 3, 5, 6, and 49 included in this study.
- The Senate Education Committee should examine the work done by Senator James J. Rhoades and his Distance Learning Task Force (See Appendix H). However, the creation of a Distance Learning Commission needs to be thoroughly examined, particularly in the following areas:

    1. Turning the leadership of distance learning over to a commission will reduce the role now assumed by the Department of Education. A clear delineation would have to be developed so that PDE would still be responsible for providing the leadership necessary for school districts as they integrate the technology and pedagogy with approved curriculum.

    2. School districts are very apprehensive about having to borrow money for distance learning — telecommunications. The fear is that poor rural schools will still be unable to provide distance learning opportunities for their students and teachers.

- Poor rural schools should be given some type of dispensation or special consideration that would enable them to obtain the money needed to participate in distance learning without having to repay the full amount.
- The Public Utility Commission should consider allowing utilities to grant public schools reduced rates for telephone service.

Pennsylvania Department of Education Recommendations:

- PDE needs to become more aggressive in educating school personnel about the various technologies and programs that are available to them.
- Programs that have successfully used distance learning technologies and techniques need to be showcased so others can adopt or adapt effective programs and strategies.
- School districts should be encouraged to include the use of educational technologies when developing their strategic plans.
- PDE should illustrate good distance learning techniques by conducting distance learning programs aimed at helping school personnel to understand and effectively implement distance learning programs for students as well as those for the continuing education of teachers.
- PDE should provide workshops and seminars to help school districts use Internet and its resources to enhance distance learning.
- PDE should re-examine their requirement for a certified teacher to serve as the distance learning facilitator and consider giving rural schools more flexibility in assigning staff to be with students in small distance learning classes.
- PDE should plan and conduct both short and long-range studies to determine the impact distance learning has on student achievement, teacher professional development, student and teacher attitudes, student retention, and the effect of expanded course offerings on career and educational choices made by students.
- PDE should consider producing distance learning courses and/or programs that fit the unique needs of Pennsylvania students and teachers.

- PDE should work cooperatively with school districts to provide training for teachers and facilitators in the use of telecommunications equipment, the development of effective instructional materials, assessment strategies, and distance learning pedagogical skills.
- PDE should consider the recommendations in this study for changes in their next Request for Applications announcement for schools to obtain funds to participate in distance learning.

Local School Districts Recommendations:

- School administrators must take the responsibility of in-servicing their staff about educational technology.
- School superintendents should review the chart on the examination of the long-range plans included in this study to become aware of what is happening in districts which are similar and make an effort to join forces with other districts to enhance distance learning possibilities.
- School districts should become more active in informing parents about the possibilities distance learning holds for their children.
- School districts should be encouraged to form partnerships with one another, with business and industry, and with institutions of higher education to bring distance learning technology to bear upon their educational programs.
- School districts should check PDE's distance learning bulletin board frequently. This information is available through the PENN*LINK system.
- School districts should become familiar with using the database made available by the National Distance Learning Center (NDLC). This database provides information about program listings for both credit and not-for-credit courses, teleconferences, seminars, and in-service training series. There is no charge to access the system, to post offerings, or to scan the database for information. NDLC can be reached by calling (502) 686-4566, or faxing (502) 686-4558.

- Local school districts should become informed about how Internet, a method for communicating among computer networks, can be used to enhance distance learning.
- School districts should include strategies to utilize distance learning to meet the needs of their students and teachers in their six-year strategic plans.
- Teachers and administrators should be trained in the:

  1. NEA's School Renewal Network which encourages participants to exchange information on a variety of topics.

  2. AT&T's Learning Network which helps teachers acquire new knowledge, learn new instructional strategies, increase self-esteem, and develop personal relationships with their peers in remote sites.

  3. Learning Link, which is a network provided by public broadcasting stations, provides access to information about programs, teacher support services, and services for students, homes, and higher education institutions.

Teacher Education Institutions Recommendations:

- Teacher education institutions must include distance learning technologies and instructional strategies for use in their educational programs so when new teachers enter the field, they will be able to take the fullest advantage of the technology involved.
- Consideration should be given to providing teachers and administrators with the opportunity to take some of the courses needed for certification, degrees, or updating skills and knowledge through the use of distance learning technology.

3. Results of Interviews with Pennsylvania State Agencies

Interviews, conducted in person or by telephone, were held with twelve people from various Pennsylvania state department agencies. The following represents their responses to eight specific questions as well as the general comments they made:

1. Do you currently use any distance learning programs to educate or train your staff?

YES 6 NO 6

COMMENTS:

- We currently participate in a national network. We also use public broadcast.
- We have used teleconferences very successfully. (4 people)
  Staff has participated in teleconferences. (2 people)
- We make video copies of teleconferences and make them available to our staff.
- Even with distance learning bulletin boards, there is still a problem in keeping up with everything that's available.

2. Do you currently use any distance learning programs to educate or train the people in your service area?

YES 3 NO 9

COMMENTS:

- Looking into the possibility of using low level distance learning via the telephone.
- We use video tapes to educate field personnel. (2 people)
- We did several of our own teleconferences and they were very well received. Finding enough receiver sites was a problem. We had some minor difficulties with the scheduling of satellite time but it was resolved successfully.
- We participate in SERC to deliver distance learning into schools. Over 127 schools have received assistance in purchasing satellite dishes.
- We are working on ways to train people in District Library Centers to use distance learning.
- Cost is prohibitive. Therefore, we do all in-house training.

3. Would you like to use the power of distance learning to fill any educational or training needs?

YES 7 NO 4 NOT SURE 1

COMMENTS:

- Distance learning has the potential to train businesses and other entities how to complete the paperwork required by the state.
- Distance learning leaves a lasting product to be used again and again. It's great for getting around travel difficulties and for not leaving one-person operations unattended.
- Could be used to educate people in public service stations, dealerships, and tag agencies.
- We don't use it because of budgetary problems. But I honestly believe I need to learn more about its capabilities. (2 people)
- Distance learning could be used very effectively if there was a central training agency that could handle all the details. Face-to-face training permits us to educate only 30 people at a time and this method of training is not cost-effective for most agencies. A central agency could bring in national programs and experts, thereby making such presentations affordable.
- Yes! But we need a central resource center in order to do this right. Each agency could provide a proportionate share. A formula could be developed to put funding in and to get services out.
- Assistance in understanding new state regulations.

If yes, what technology do you prefer and why?

- Two-way video and two-way audio is currently the best method.
- I really need to learn more about what is available, what it can do, and the costs involved. (3 people)
- I'm not knowledgeable enough about the technology involved.
- I do not see a need for such training for our agency.

4. Does one method of distance learning delivery appeal to you better than others?

YES 2 NO 10

COMMENTS:

- Telecommunications.
- I simply don't know enough about the choices to answer this question. (3 people)
- I prefer interactive technology with full motion video done in real time.
- Satellite. Particularly for rural Pennsylvania. However, networks are closing the gap rapidly.
- Some of the clients we deal with are not prone to buying new things, particularly in the area of technology.

5. Are you familiar with any commercial distance learning programs that are available that might fit your needs?

YES 5 NO 7

COMMENTS:

- Yes. The only problem is that live teleconferences and training sessions can not be previewed before using them.
- Announcements come out all the time about topics that would be of interest to the field. One in particular focuses on AIDS.
- Since programs can not be previewed ahead of time, it's not always easy to tell good satellite programs from the poor ones until the program is delivered.
- Most commercial programs are still too expensive for us.

6. Would you like to develop your own distance learning courses or programs for your staff or the people in your service area?

YES 5 NO 7

COMMENTS:

- No staff and no revenue.

- Right now that appears to be too large of an investment for us. However, when more information regarding the technology is available, the district may be better able to maximize the potential of using distance learning.
- Yes, but only if we would have a central agency to provide the technical expertise needed.
- Topics such as Community Based Care, Long Term Care, Protective Services (Abuse), Complaints Services, and Serving as an Ombudsman.
- Basic library trustee training, interlibrary loan training, and programs to train new staff instantaneously.
- Pennsylvania should provide courses for credit for students. We have lots of uplinks. Coordination is needed to use the highways we already have much more effectively.
- Staff development for teachers.

7. Does distance learning have the capability of delivering anything directly into the homes throughout the Commonwealth that could be beneficial to the mission of your agency?

YES 8 NO 3 NOT SURE 1

COMMENTS:

- You bet. Programs to help the general public use their libraries more effectively. But people need a choice of time. Programs should be offered at different times so people can access them conveniently. But we also need to determine when training needs to be one-on-one and when it can be offered to groups more effectively via distance learning.
- Yes, there are a number of good programs we could use for home delivery.
- Definitely. With the changes in Chapter 5 Curriculum Regulations, we could help teachers understand outcome-based learning.
- Very much so.
- Although the public is generally kept informed by press releases, a program on tail pipe emissions testing is needed.

- Get information into the homes so parents can understand how the new regulations will affect the teaching/learning process.

8. Do you feel your agency should conduct or participate in educational and training needs via distance learning?

YES 8 NO 2 NOT SURE 2

(Some respondents put conditioners on their YES response. Most of these dealt with funding issues)

If yes, how do you think distance learning should be funded for your agency?

COMMENTS:

- Burden could be shared by the state and local field agencies.
- Discretionary state funding. (2 people)
- It would depend upon what is being taught. For instance, it could be possible for the state to pay for a portion of the costs and subscribers pay a fee for participating. (2 people)
- Many states are far ahead of Pennsylvania when it comes to distance learning. Pennsylvania should take a look at what others have done and the impact that their funding has had on the delivery of services.
- We need to build more partnerships with business, industry, and higher education.
- Pennsylvania has some great things happening in distance learning. What is needed now is a way to link these highways together so we can get the biggest bang for the buck.
- It has to be discretionary funding — no competitive funding.
- Departments should fund their own programs.
- The money provided for distance learning must be "fenced," that is, it can not be used for any other purpose or it will never happen.
- A great deal of our funding comes from the federal government.
- Our clients still like to meet face-to-face. All our training is hands-on and lecture.

- The Department of Education is planning on conducting a distance learning equipment inventory later this year. We are also going to encourage schools to conduct a needs inventory to determine their distance learning requirements.
- Pennsylvania should follow what some other states have done; identify curriculum first and then the technology to deliver that curriculum.

Conclusions:

- Most of the state departments would like to investigate the use of distance learning for training and education in their agencies.
- The major concern regarding distance learning is the cost.
- Most state departments would like to see more state funding placed in this area. However, the general concern seems to be that the monies should be targeted specifically for distance learning.
- Most state departments admit their people need more training regarding the technologies involved and how distance learning can help in their agencies missions.
- The participants were all very enthusiastic about using distance learning to educate not only their own staff, but the general public as well.
- Most state departments feel the regulations would not prevent them from getting involved in distance learning or training. However, concern was expressed over who would pay the costs involved. For example, if a department was broadcasting a program to the field, the participants may be required to pay to offset some of the costs. If so, then the field may object.

Recommendations:

- The Pennsylvania Department of Education should be charged with providing leadership to educate people in other state agencies about distance education and should play a major role in the formation, development, and implementation of any statewide distance learning plan.

- The Senate Education Committee should be encouraged to move ahead with its Distance Learning Task Force in efforts to formulate a plan to meet the needs of the Commonwealth's residents, including the needs and requirements of other state agencies.
- Legislators should provide the funding necessary to develop a statewide plan to address the needs of all its agencies and residents for distance learning.
- Agencies must move forward in investigating the possibility of using distance learning to keep their clients well-informed.

NOTE: See Appendix L for a list of people who participated in the interviews.

4. Results of Regional Meetings

Participation in the nine regional meetings held in nine State System of Higher Education Universities was a disappointment. While those few who did attend were extremely interested in distance learning and posed many questions, it was anticipated many more educators would be in attendance.

Participants at the regional meetings were particularly interested in the following:

- Where and how to get the funding necessary to get involved in distance learning.
- The need for a certified teacher in a distance learning classroom when they only had one to three students participating in a course.
- Vendors who were offering services and the costs involved.
- What was going to happen with the results of this study.

5. Comparing and Contrasting the Needs

Rural school districts still have ~~a~~ need for distance learning programs that have not been met, particularly in the areas of mathematics, science, and foreign languages. While there are more rural schools participating in distance learning than just a few years ago, many rural students still do not have access to courses to fill their unique educational needs (e.g., the gifted and advanced placement students).

The examination of the five-year plans and distance learning membership rosters indicated rural school districts have recognized that technology can help to expand curricular offerings and increase access to resources for their students and teachers. The progress in this direction, however, has been extremely slow.

The need for distance learning has been substantiated, but at the same time several major problems are preventing its more rapid implementation. Ninety-one percent of the survey respondents indicated a need for financial assistance in order to get involved in distance learning. Rural school administrators also indicated they need assistance in the areas of faculty training and technical assistance.

Throughout this study, many verbal comments were made by rural administrators who felt the gap between the "haves" and the "have nots" was widening. While equity has been a concern of educators for a long time, the focus of such concern was basically between what urban/suburban students and teachers had access to, and what services and programs were available to rural students and teachers. The problem that seems to be surfacing now, however, is there is also an equity problem among rural districts. Students from those districts considered not only rural, but also small and poor, have a far greater chance of graduating without ever having the opportunity to participate in distance learning programs than students from larger and wealthier rural school districts.

However, all rural school districts, many with very small staffs, need distance learning programs to provide a more diverse curriculum to their students. As one administrator stated, "Gifted students don't all live in wealthy suburban school districts."

B. Distance Learning Programs Available

1. Interpretation of Urban/Suburban Survey Responses

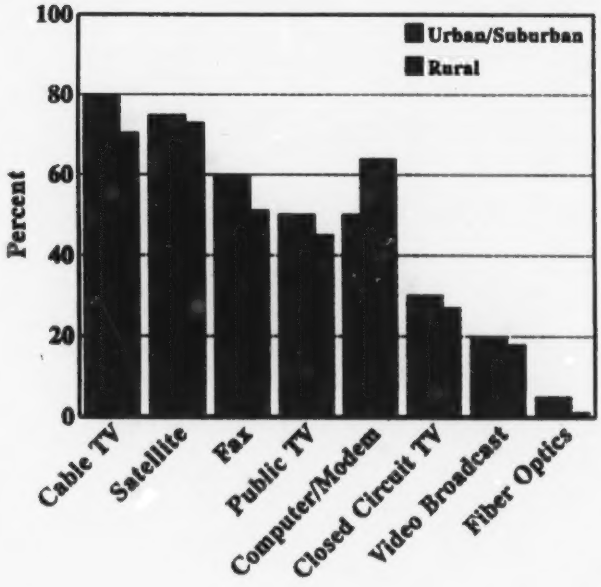
School Districts Who Use Distance Learning

One hundred fifteen surveys were sent to urban/suburban school districts. Forty-seven were returned (41%). Of the 47 returned surveys, twenty (43%) indicated their districts use some form of distance learning, while twenty-seven (57%) do not. In comparison, 51 percent (51%) of the rural school districts responding indicated they used some form of distance learning.

Technologies Used in School Districts for Distance Learning

Responses from the urban/suburban districts and those from rural school districts indicate there is only a two percent difference in the use of satellites, with the urban/suburban ranking higher (Fig. 4). There is a much higher percentage difference (10%) between urban/suburban and rural school districts when it comes to the use of cable, with the urban/suburban once again ranking higher. This could be attributed to the fact some rural

Fig. 4 Technologies Used in School Districts



Urban/suburban data not verified using 5-yr. plan data. Rural data has been verified.

schools do not have access to cable. All other methods of distance learning delivery, with the exception of computers, are available in larger percentages in the urban/suburban schools.

Distance Learning Services Used

The greatest percentage difference between the rural and urban/suburban school districts lies in the use of satellite programs. Only 35 percent of the urban/suburban schools use Channel One, while 81 percent of rural schools use this service. This could be attributed to the fact Channel One comes with free equipment and is therefore more appealing to rural schools.

Although fewer rural schools reported they have access to cable, a larger percentage of them use the cable programs (with the exception of Discovery) as a form of distance learning.

SERC is being used by only 35 percent of the urban/suburban schools, while 75 percent of the rural schools are SERC members. This is strong evidence rural school districts need the distance learning programs provided by SERC to meet the needs of their students far more than urban/suburban schools.

Involvement in Distance Learning Partnerships with Outside Sources

A higher percentage of rural schools (73%) participate in ACCESS PENNSYLVANIA than the urban/suburban schools (50%). More rural schools participate in learning partnerships with their intermediate units (44% vs. 20%). Rural school districts may be relying more heavily on their intermediate units for assistance since they tend to be more sparsely staffed.

Courses Taught Through Distance Learning

The urban/suburban school districts are using distance learning largely to provide calculus and additional foreign languages, particularly Japanese and Russian, to their students (Table 4). Rural school districts are also using distance learning mainly for these purposes. In addition, rural schools are providing more courses in Latin and in the sciences via distance learning than the urban/suburban schools.

Table 4

COURSES TAUGHT THROUGH DISTANCE LEARNING	Number of Responses	% of Total Responses
HIGHER MATHEMATICS (3 responses)		
Calculus	3	100.0
FOREIGN LANGUAGES (10 responses)		
Japanese	7	70.0
Russian	2	20.0
French	1	10.0
SCIENCES (1 responses)		
Environmental Study	1	100.0
OTHERS (6 responses)		
Economics	2	33.3
General Science	1	16.7
Latin	1	16.7
Social Studies	1	16.7
Accuweather	1	16.7

Special Programs Offered Through Distance Learning

The urban/suburban and rural schools are using distance learning to offer elementary programs and programs for gifted students. There are, however, more rural school districts using distance learning for advanced placement courses. This could be attributed to the fact rural schools may have smaller numbers of students needing such courses as well as an insufficient number of teachers to handle special courses.

Districts Willing to Share Distance Learning Technologies and School Facilities

Seventeen urban/suburban school districts out of the 18 respondents indicated a willingness to share distance learning technologies and school facilities with the community and/or state agencies. This is an indication many potential partnerships are currently not being formed and that steps need to be taken to help bring these agencies together.

Districts Willing to Share Distance Learning Technologies with Other Districts

Seventeen urban/suburban school districts out of 18 respondents indicated a willingness to share distance learning technologies with other school districts. While some of them may already be participating in sharing, particularly in a teleteaching project, it is an indication much more can be accomplished in this area. While rural school districts reported they are currently involved in partnerships, mainly with other school districts (44.4%), intermediate units (44.4%), and universities (37%), much of this may be attributed to the ACCESS PENNSYLVANIA project. Therefore, rural school districts are going to need a great deal of assistance in making the right connections to share distance learning technologies and/or teachers. The most likely agency to provide such assistance is the Pennsylvania Department of Education.

2. Summary of Distance Learning Programs Available

Rural school districts have a variety of formal distance learning programs and delivery methods to choose from. The most popular are: (1) satellite, (2) cable, (3) public broadcast, and (4) audiographics. A complete guide of distance learning programs can be found in Appendix R.

Satellite Programming:

The Satellite Educational Resources Consortium (SERC), a non-profit partnership organization, is the largest provider of distance learning programs via satellite to Pennsylvania's rural schools. The Pennsylvania Department of Education and the Pennsylvania Public Television Network are participating partners in SERC and Pennsylvania schools are eligible to become members. However, schools must pay registration fees and other associated costs. Live interactive classroom instruction is offered in eight different subject areas. More information can be obtained by calling Jean Tuzinski (717-783-4413).

TI-IN, a for profit organization located in Texas, offers programs in seven different areas. Schools must pay site fees and other associated costs. For more information, call Jeanne Moellendick (1-800-999-8446).

The Massachusetts Corporation for Educational Telecommunications (MCET) focuses on short program series in both fundamental and enrichment areas for whole classes with the teacher present. For more information, contact Inabeth Miller, (617-621-0290).

Cable:

The Cable Alliance for Education, an alliance of twenty cable companies, provides schools with a variety of educational choices. Many of these programs are available on a no-fee basis. For more information call Bobbi Kamil (703-845-1400).

Public Television:

Pennsylvania rural schools may get information about their local public television stations' offerings by contacting the stations directly or by calling intermediate units.

Audiographics:

The Riverview Teleteaching Project is an audiographics delivery of distance learning, one-way video, two-way audio. Computers and audio programming are used to deliver courses to students over telephone lines. Currently, schools may select from a menu of nineteen different courses. More information can be obtained by contacting Dorothy Hajdu (1-814-226-7103).

Rural schools may also participate in programs which are usually not considered formalized learning but offer a variety of resources and information which can support distance learning. The most popular among these is ACCESS PENNSYLVANIA.

ACCESS PENNSYLVANIA:

ACCESS PENNSYLVANIA, a resource sharing network of more than 787 school, public, university, and special libraries, allows students to obtain resources located beyond the walls of their schools. More information about this project can be obtained by contacting the School Library Media Services Division of the Pennsylvania Department of Education (1-717-783-9192).

LIN-TEL:

LIN-TEL is an on-line searching network supported by the Pennsylvania Department of Education. Students may conduct their own on-line searches for bibliographic information through accessing the Bibliographic Retrieval Services. Contact Neil Richvalsky (1-717-783-9540) for more information.

PANET:

PA is a Pennsylvania on-line science database that is available to science teachers. For more information contact Kip Bollinger (1-717-783-6598).

Other On-Line Information Networks:

Rural schools can also arrange to have access to computer on-line information networks. Among these are Learning Link (1-717-533-3548), NASA Spacelink (1-205-895-0028), and the National Distance Learning Center.

C. Need vs. Availability vs. Use of Distance Learning Programs

1. Distance Learning Programs Being Used

The distance learning programs with the highest use in rural schools are calculus, statistics, Russian, Japanese, Physics, Latin, world geography, advanced placement, and economics. In urban/suburban schools, Japanese, economics, and calculus are experiencing the greatest demand. The largest majority of students involved in distance learning are taking one or more foreign languages. Japanese is the top choice, with Russian placing second.

Among both populations, SERC is the major provider, with TI-IN a distant second. Rural schools are also receiving distance learning courses from OSU. In addition, the Riverview Teleteaching project, local consortia, and a smattering of other vendors are providing distance learning courses to both populations.

Based on the responses received, it is obvious rural school districts are more heavily involved in distance learning than urban/suburban schools.

2. Comparison of Need vs. Availability vs. Use

The increased interest in Japanese has forced SERC and TI-IN to offer several sections of Japanese during the broadcast day. And while the largest percentage of students involved in distance learning are taking Japanese, there still appears to be a need for more sections.

Rural schools who are not currently involved in distance learning have expressed a need for courses in algebra, calculus, statistics, Russian, German, French, Japanese, Latin, economics, physics, biology, environmental study, and chemistry. All of these courses, except environmental study and chemistry, are currently available.

There were a total of 340 responses. Sixty three indicated a need in higher mathematics, 94 need foreign languages, 51 are interested in the sciences, 23 need programs for the gifted, 27 indicated a need for advanced placement, 18 for elementary programs, 13 for special needs while 18 responses were interested in obtaining a variety of other courses via distance learning. Using a minimum of three students taking each course per response, this means at least 1,020 rural students who could possibly benefit by participation in distance learning are being denied that opportunity.

If all rural schools who expressed an interest in getting involved in distance learning were to actually participate, the use of distance learning would obviously increase dramatically. In order to get involved in distance learning, however, rural school administrators indicated they need assistance in five major areas. These are listed below in priority order:

1. financial aid,
2. training for the faculty,
3. technical assistance,
4. training for administrators, and
5. facility renovations.

Urban/suburban school responses indicated an overwhelming interest in forming partnerships with rural schools. Therefore, some of the needs of rural schools could possibly be addressed by the formation of partnerships between rural schools and urban/suburban schools. However, facilitation will be necessary to bring interested parties together. The Pennsylvania Department of Education could assume this responsibility.

D. Summary of Positions Held on Distance Learning by Various Organizations

1. Analysis of Position Papers

Requests were made to a total of 42 educational agencies and organizations for copies of their position papers on distance learning. Only eight agencies responded they had developed a formal policy. These agencies included the American Federation of Teachers (AFT), the State Library of Pennsylvania, the Pennsylvania State Educational Agency (PSEA), the Cable Television Association, PENNARAMA, the Council of Chief State School Officers (CCSSO), Pennsylvania Rural Electric Association, and the National Education Association (NEA). Others, however, verbally supported distance learning even though they did not have a formalized statement. An analysis was made of the seven papers submitted to determine similarities and/or conflicting views.

American Federation of Teachers Convention Resolution-1990

- Investment in human capital to expand technology use is critical.
- Additional federal funds must be made available for technology purchase.
- States must designate funds for teacher training, software evaluation, information dissemination, demonstrations of new uses of technology, and to equip teachers with the technology itself.
- State-level teacher certification requirements should incorporate technology expertise.
- Creative funding mechanisms (the sale of bonds for example) to generate more technology investment should be encouraged.
- All staff should be involved when new technologies are brought into the schools.
- School districts should take care to make comprehensive approaches to the introduction of new technology — i.e., to rationalize the new systems so as not to generate new inefficiencies through fragmentation or redundancy.
- Technology cannot be simply an add-on. The whole school needs to be reorganized to integrate and maximize the use of new technologies effectively.

American Federation of Teachers Convention Resolution-1990

RESOLVED, the AFT opposes television commercials in the classroom and condemns the lack of economic resources that puts school districts in the position of buying television and other electronic equipment with the valuable learning time of children. AFT understands the decisions regarding such arrangements some locals might nevertheless make out of a pragmatic need for television and other electronic equipment. (1990)

The State Library's Mission Statement:

- Ensure accessibility to library resources and services to all residents of Pennsylvania.
- To make statewide services available to meet educational, informational and research needs.
- To provide leadership to develop strong libraries and new programs.
- To move towards the 21st century by using technologies to create and link networks.
- To promote interagency participation and support.

Pennsylvania State Education Association Position on Telecommunications\Distance Learning

The Pennsylvania State Education Association (PSEA) supports the use of the state-of-the-art technologies to advance student learning via telecommunications\distance learning when the purpose is (1) enrichment; (2) provide advanced offerings; (3) provide courses required by law, but which lack sufficient enrollment in a single district, or building within that district; and (4) where appropriate certified teachers are the teleteachers and a certified teacher is in the receiving classroom. Teleteaching and course offerings shall not be utilized to consolidate or reduce offerings, reduce staff, or because of budget or financial exigency. A work group including Education Services and IPD will refine positions and issues such as subcontracting, copyright, role of teachers, and a PSEA teleteaching project.

Cable Television Association: Resolution - FREE CABLE SERVICE TO SCHOOLS, Adopted October 2, 1989.

- Education is the foundation on which the future of global society must be built.
- The future well being of our national social, economic, and political system is closely related to the educational opportunity provided our citizens.
- The cable television industry has a tradition of strong support for public education.
- The various cable networks provide a wealth of programming which can supplement school texts and classroom presentations.
- That all PCTA members are encouraged to, where technically feasible, provide free basic service to primary and secondary schools in their service areas and to provide educators with information about cable educational programming.

PENNARAMA Mission Statement:

The Mission of PENNARAMA is to provide the people of Pennsylvania and their communities with a cable television service that responds to their personal and occupational and professional aspirations and needs. The Mission is advanced through partnerships with the Pennsylvania Cable Network, educational and cultural institutions, and governmental organizations and agencies.

Council of Chief State School Officers Policy Statement 1991

- Develop a State Plan for the Use of Technology in Education.
- Ensure that the State, Districts, and Schools have sufficient funding to initiate and sustain on-going use of technology as articulated in the state plan.
- Ensure that students and school personnel have equitable access to technologies for their learning, teaching, and management needs.
- Ensure that educators have the staff support, training, time authority, incentive, and resources necessary to use technology effectively.
- Encourage the development and expansion of telecommunications networks.
- Support the use of technology in student assessment to measure and report accumulated complex accomplishments and new student outcomes.

National Education Association Special Committee on Telecommunications, 1991-92

During 1991-92, the Special Committee on Telecommunications made the following 25 policy recommendations and 8 action recommendations:

Policy Recommendations:

- Education employees are essential to the success of any telecommunications project.
- Telecommunications technology is an effective tool to enhance the curriculum and support the restructuring of schools.
- No one best model exists for the use of telecommunications technology. Schools must choose the system that is most appropriate for them.
- Telecommunications technology has the capacity to reduce educational inequities within and among schools and school districts.
- Education employees, including representatives of the local association, must be involved in all aspects of telecommunications projects.
- Maintenance, technical support, training, evaluation, and staffing, as well as equipment purchases must be fully funded.
- Participants in projects involving telecommunications technologies should be recruited on the basis of skills identifies as necessary for success as well as seniority. Participation should be voluntary.
- Standards and policies regarding facilitators in telecommunications projects should be developed by the district and local associations.
- Compensated training should be provided for teachers and facilitator in the use of telecommunications equipment, the development of effective materials, and appropriate instructional strategies.
- Prospective teachers should receive training in telecommunications technology and the instructional strategies to be employed in its use.
- Telecommunications technology can be an effective vehicle for professional and staff development.

- The local association has three fundamental roles with respect to telecommunications technologies: to support efforts to improve the quality of instruction in local schools, to enhance the working conditions of its members, and to protect their rights.
- No reduction of positions, hours, or compensation should occur as a direct or indirect result of any telecommunications system.
- Individuals who teach classes over interactive telecommunications networks should be given sufficient time to prepare for their classes.
- Additional preparation time should be granted to teachers using telecommunications technology to enrich their regular programs.
- Class size and load should be educationally sound and determined by agreement between the district and the local association.
- Education employees should receive compensated training provided by the district. If training occurs outside the school year, staff members should be compensated at their normal hourly rate for time spent in training.
- The discipline of students at remote sites should be the responsibility of the district at the remote site.
- Teleteachers should be held harmless from any and all actions, suits, claims, or other forms of liability that arise from their involvement in a telecommunications network. Employees of teleteachers should be obligated to provide a legal defense for them in the event that they are named in a negligence action.
- The evaluation of teleteachers should be conducted openly and meet the requirements of the local collective bargaining agreement or evaluation policy.
- Telecommunications technology should be used to enhance the roles and instructional opportunities of teachers.
- Telecommunications technology should be used to support the development of critical thinking and collaboration skills as well as to expand opportunities for students.
- Every classroom should be equipped with a telephone.

- Every classroom should have access to the resources necessary to make full use of telecommunications.
- Telecommunications providers should have the opportunity to develop, produce, and distribute products and services relevant to public education.

Action Recommendations:

- That the NEA encourage the development of public and private funding to allow schools to purchase, maintain, and upgrade telecommunications systems and connections.
- That states be encouraged to develop specific policies for licensing teachers involved in distance education.
- That NEA state affiliates monitor changes in state telecommunications regulations that will impact accessibility and affordability of advanced telecommunications technologies to public schools.
- That existing NEA publications be used to inform NEA members regarding the impact of proposed amendments to current telecommunications regulations.
- That the NEA support the efforts of the Consortium for School Networking to promote K-12 inclusion in the development of a nationwide fiber optic network backbone.
- That the NEA and its affiliates encourage state legislatures and state public utility commissions to grant school district reduced rates for telephone service.
- That the NEA and its affiliates work with appropriate agencies and organizations to ensure that telecommunications providers and networks offer free or low-cost access to schools and classrooms.
- That the NEA and its affiliates begin to explore the ways in which schools and classrooms are prevented from receiving the benefits of telecommunications technologies and develop appropriate strategies for dealing with these problems.

Pennsylvania Rural Electric Association

It is the Rural Electric Administration's (REA) policy that grants provided through the REA are to encourage, improve, and make affordable the use of advanced telecommunications, computer networks, and related advanced technologies to provide educational and medical benefits through distance learning and medical link projects to people living in rural areas and to improve rural opportunities.

REA has a Rural Economic Development Loan and Grant Program which makes available "zero interest loans and grants" through the Pennsylvania rural electric cooperatives for economic development projects that meet their criteria.

2. Conclusions

The following conclusions were drawn from the analysis of the 8 position papers submitted:

- The distance learning policy statements contained no conflicting statements.
- The policy statements of NEA, AFT, and CCSSO were the most comprehensive and well-developed. It appears these three educational leadership organizations understand many of the ramifications of distance learning.
- State and local educational agencies should be encouraged to examine the distance learning policy statements of NEA, AFT and CCSSO when developing distance learning policies or implementing distance learning in the K-12 environment.

E. Role of State Policy in Satisfying Rural School Districts' Needs

1. Results of the Examination of Chapters 3, 5, and 6

As part of the data gathering for this study on distance learning, an examination of the chapters in the School Code that could have an impact on how distance learning is developed, implemented or evaluated was conducted. Included in the examination were Chapter 3 (School Profiles), Chapter 5 (Curriculum Regulations), Chapter 6 (Vocational Education), Chapter 49 (Teacher Certification), and the draft of the proposed revised Chapter 49.

Sections within these regulations that would either enhance or inhibit the use of distance learning in rural school districts were identified. What follows is a summary of the key implications educators should consider when addressing the regulations as they now stand. Appendix F contains a complete summary of all the sections which either inhibit the use of distance learning, along with the suggestions for possible changes in these regulations.

Section A: Chapter 3 School Profiles (Chapter adopted March 12, 1992: Section 3.21 revised May 14, 1992)

The Pennsylvania System of School Assessment (PSSA) is a state evaluation procedure including the collection of relevant data through school self-reports and student assessments, as well as the interpretation and reporting of these data. The PSSA is designed to provide schools and school districts with relevant data to enable school personnel and other citizens to assess the schools' performance in order to initiate the improvement of programs.

KEY IMPLICATIONS

§ 3.21 (a)	Schools must not forget to include the strategies for assessment that will impact those students taking distance learning courses (See § 5.231 under Chapter 5).
§ 3.21 (b)	The data gathered from those students participating in distance learning must also be included in the PSSA.

Curriculum (Chapter adopted March 12, 1992; Section 5.4, 5.201, 5.211-5.213, 5.217, 5.219, 5.231-5.232, and 5.252 revised May 14, 1992)

The purpose of this chapter is to establish State policy regarding the expectations of schools, student learning outcomes, the importance of schools focusing on the instruction of students in challenging learning outcomes, and the importance of time in the education of students (See § 5.2, Chapter 5 Regulations in Appendix G).

KEY IMPLICATIONS

§ 5.4 (d)	Schools must make a concerted effort to educate parents about distance learning.
§ 5.203 (c)	Districts should conduct a separate analysis to determine the level of need for distance learning in their schools. See Appendix O for an excellent example of such an analysis, developed by Charlene Scheib, Schuylkill County Intermediate Unit 29.
§ 5.203 (c,3)	Schools may or may not find it necessary to add student learner outcomes as a result of distance learning. This will depend upon the uniqueness of the content being offered by the distance learning program.
§ 5.203 (c,4)	Schools may find it necessary to provide a planned course for their distance learning programs. Therefore, distance learning providers should be made aware of the impact this requirement will have on schools using their programs.
§ 5.203 (c,5)	Schools must be certain when distance learning is incorporated into the curriculum the provider can submit a list of learning outcomes, as well as the assurance students will be measured for mastery of the stated outcomes. Schools need to develop appropriate methods to help students who are having difficulty mastering the subject content which is part of a distance learning course.

§ 5.203 (g) In order to properly evaluate strategic plans that will include the use of distance learning, the Department of Education must be certain the staff assigned to this task are fully aware of the components of distance learning and they understand its unique characteristics.

§ 5.223 This regulation encourages schools to be more innovative and creative in their instructional approaches which may encourage the application of more distance learning opportunities.

Section C: Chapter 6 Vocational-Technical Education (Chapter adopted March 12, 1992; Section 6.23 revised May 14, 1992)

This chapter applies to school districts and Area Vocational Technical Schools (AVTS) offering secondary or adult vocational-technical education programs.

KEY IMPLICATIONS

§ 6.21 Local Advisory Committee; § 6.22 Administrative Committee; § 6.23 Occupational Advisory Committee All members of these committees need to be educated regarding the distance learning opportunities that are available for vocational-technical secondary and adult education students.

NOTE: See Appendix G for a copy of Chapters 3, 5, and 6 Regulations

2. Results of the Examination of Chapter 49

Section D: Chapter 49 (Current Regulations)

Regulations of the State Board of Education of Pennsylvania; Certification of Professional Personnel (Approved July 14, 1972; amended July 13, 1973, March 15, 1974, November 21, 1975, March 12, 1976, September 16, 1977, January 13, 1978, March 10, 1978, and July 10, 1980, September 10, 1981, September 13, 1984 - effective June 1, 1987, September 10, 1987 - effective December 26, 1987)

This chapter provides regulations for teacher certification.

KEY IMPLICATIONS

§ 49.11 (b)	Under regulation § 49.15, certificated teachers are permitted to be with distance learning students who are taking courses in subject areas other than those for which the teachers have been certificated.
§ 49.13 (b,1)	The Department should require colleges to provide appropriate courses and training that will allow students who are preparing to become teachers to develop the necessary pedagogical skills to implement distance learning programs effectively.
§ 49.16	Schools involved in distance learning should be certain teacher induction programs include information about, and exposure to, distance learning programs.
§ 49.18 (c)	The test should include questions to determine the teacher's level of knowledge about the effective use of distance learning technologies to deliver instruction to students.

NOTE: See Appendix G for a copy of Chapter 49 Regulations.

Section E: Proposed Revised Chapter 49 Regulations

The Professional Standards and Practices Commission has been working on revising Chapter 49, Certification of Professional Personnel. However, since the adoption of student outcomes under Chapter 5 (Curriculum Regulations) has been put off until January, 1993, it is doubtful that any further progress will be made on the revision of Chapter 49 until the issue of outcome-based learning has been resolved. For the purposes of this study, a review of the September 10, 1992 draft was made.

Chapter 49: Certification of Professional Personnel (Draft Six, September 10, 1992)

KEY IMPLICATIONS

Instructional Certificates	Somewhere in this section there should be a statement regarding the pedagogy necessary to use technology efficiently and effectively.
Administrative Certificates	The programs recommended for these certificates do not include the use of technology. Under the category of "Management Skills," there should be two additional requirements: (1) Educational Technology and, (2) School Library Media. Administrators should be required to understand how the functions of the school library will be impacted by placing distance learning programs within the library facility.
Vocational Education	While vocational teachers are familiar with technology as it applies to their own certification area, they need to also understand the pedagogy necessary to use distance learning programs appropriately within their area.

NOTE: **See Appendix G for a copy of the September 16, 1992 draft of the revised Regulations.**

3. Results of the Analysis of the RFAs

Comparison of the Two Distance Learning Grant Announcements (1991-92 and 1992-93)

For the past two years, the Pennsylvania Department of Education has issued Requests for Applications (RFA) for school districts to apply for funding to get involved in distance education. The requirements and criteria contained in the 1991-92 RFA and those in the 1992-93 RFA (see Appendix P) were compared and contrasted. The following represents the results of that examination:

1. Applicants: No changes were made in this section from 1991-92 to 1992-93.

   Applicants may include:

   a. Any local educational agency,
   b. A partnership of local and other educational agencies,
   c. An Intermediate Unit representing local and other educational agencies.

   Limitation: If a school district is part of a consortium proposal, it may not additionally submit a single school proposal. This limitation was the same for both years.

   Partnerships: Poor, small, and/or rural districts are encouraged to form partnerships with larger, wealthier, and/or more urban districts. Partnerships were encouraged in both years.

   - **OBSERVATION:** During 1991-92, $312,937 was awarded for distance learning projects and programs; $287,937 (92%) went to rural schools. During 1992-93 a total of $279,274 was awarded all of it going to rural schools. Apparently, the criteria as stated in both years did not inhibit rural schools from becoming successful grant applicants.

2. One major change regarding the total amount an applicant could request was made. The 1992-93 announcement allowed an applicant to request up to $100,000, compared to a limit of $25,000 in 1991-92.

   - **RECOMMENDATION:** While the $100,000 limit on an application is probably necessary for consortium type efforts, it also encourages all applicants to seek large amounts. Smaller projects, which may be even more beneficial to the school, may be overlooked because of the lure of the upper limit of $100,000.

While the 1992-93 RFA stated, "priority will be given to proposals serving a number of schools, especially poor, small and/or rural districts and to proposals reflecting cooperation within consortia," it infers rural schools must form consortia in order to receive a grant. Consideration should be given to providing an expanded definition for rural schools to allow for more flexibility.

As long as the line item for distance learning projects remains under $1,000,000, fiber optic projects should be funded from other sources and include the requirement for business and industry partnerships. Other states, such as Ohio, have been successful in creating fiber optic networks but they have had the cooperation and financial support of business. Since fiber optic networks are very expensive, the current line item for distance learning should focus on programs and projects that will assist schools, particularly those which are rural and poor, to obtain distance learning equipment and pay for student registration fees.

3. The applicant responsibilities were basically the same. The only difference was the 1992-93 announcement spelled out the elements of the final report that must be submitted by the applicant.

   - **RECOMMENDATION:** The application should include a date when the final report is due. Every effort should be made to review the final reports immediately to determine what, it any, changes should be made in the upcoming announcement for applications. In addition, schools should be held accountable for completing their objectives and they should be required to keep in contact with PDE if they encounter any problems in fulfilling their obligations.

4. The 1992-93 announcement was not made until September 17, 1992, with final decisions being made December 31, 1992. The 1991-92 dates were both four to six weeks earlier.

- **RECOMMENDATION:** The RFA announcement should be issued earlier so school districts know before school starts whether or not they will be receiving any monies to get involved in distance learning. This is especially important because registration for some of the distance learning courses actually begins in spring for the following school year. Since many rural schools have a small faculty, more lead time will allow these schools to work on their proposals during the summer when they have access to assistance from teachers and administrators.

- **RECOMMENDATION:** Since many more schools apply for funds than can be accommodated, the line item should be increased as quickly as possible. However, care should be taken that the money, regardless of the amount, is distributed fairly among the intermediate units that include rural schools who are seeking funding.

5. The criteria on which the applications for 1992-93 were to be judged, while detailed in nature, were not given point value.

- **RECOMMENDATION:** Each element of the criteria should be given a definite point value so that proposal writers have a clear understanding of the level of importance of each section. This makes it very clear to the applicants as well as to the proposal readers how applications will be rated. Rating proposals is much easier when the level of subjectiveness is reduced while objectiveness is increased.

While the comments, suggestions, and recommendations made by those who read and ranked the applications should be of paramount importance when final decisions are made regarding which applications will be funded, the Pennsylvania Department of Education must retain the right for final approval of awards.

4. Results of Interviews with Other States

Teacher Certification, Reciprocity, Funding, Percentage of Schools with Satellite Dishes, and Major Providers of Distance Learning Courses

In order to find out how other states were handling distance learning, 34 states were chosen randomly to participate in a brief survey. Twenty-nine states responded (see Appendix M). Contact was made by phone or fax to gather the information regarding the following five questions:

1. How does your state handle certification requirements for distance learning teachers? Do you have reciprocity? (See Chart A)
2. Can non-certified people serve as facilitator with students in distance learning classrooms? (See Chart A)
3. Does your state have a line-item or an appropriation targeted for distance learning? If so, what is the amount and for what purposes may it be used? (See Chart B)
4. Of the total number of public school buildings in your state, what percentage have satellite dishes? (See Chart C)
5. Who are the top three providers of distance learning programs to schools in your state? (See Chart C)

Many respondents cautioned that their states were still in the process of establishing policies for distance learning. There does appear to be a strong movement towards accepting the credentials of the teacher from the state originating the program as long as that teacher holds proper certification within that state. If, however, courses are short-term, then the majority of states felt there was no need to be concerned about certification. These instances would cover programs that are only one-to-two shot projects or seminars.

State respondents indicated policies were either in the making or being considered that might effect how distance learning would be handled in their state.

Chart A

HOW STATES ARE HANDLING TEACHER CERTIFICATION AND CLASSROOM FACILITATING FOR DISTANCE LEARNING					
STATE	NO ACTION	ACCEPTS CERTIFICATION OF ORIGINATING STATE	MUST BE APPROVED WITHIN STATE	NO RECIPROCITY	NON-CERTIFIED FACILITATOR
Alabama			X		YES
Connecticut			X	X	NO
Florida		X			YES
Georgia		X			YES
Hawaii			X		YES
Illinois		X			YES
Indiana	X				N/A
Iowa			X	X	YES
Kentucky		X			YES
Maine		X			YES
Maryland		X			YES
Minnesota		X			YES
Nevada			X		NO
New Hampshire		X			YES
New Mexico			X	X	YES
New York		X			YES
North Carolina			X		YES

Chart A (Cont'd)

HOW STATES ARE HANDLING TEACHER CERTIFICATION AND CLASSROOM FACILITATING FOR DISTANCE LEARNING					
STATE	NO ACTION	ACCEPTS CERTIFICATION OF ORIGINATING STATE	MUST BE APPROVED WITHIN STATE	NO RECIPROCITY	NON-CERTIFIED FACILITATOR
North Dakota			X		YES
Ohio		X			YES
Oklahoma		X			YES
Pennsylvania		X			NO
South Carolina		X			YES
South Dakota		X			NO
Texas			X		YES
Utah	X			X	YES
Vermont				X	YES
Washington		X			YES
West Virginia			X		YES
Wisconsin			X		YES

Question 1: How does your state handle certification requirements for distance learning teachers? Do you have reciprocity?

Question 2: Can non-certified people serve as facilitator with students in distance learning classrooms?

Comments Regarding Chart A:

- While most states prefer to have a certified teacher in the distance learning classroom with students, non-certified people, such as teacher aides, are permitted to be with the students. The majority indicated the aides must be adults employed by the school district.
- Vermont indicated distance learning arrangements are locally determined, and the state department currently does not keep information at this level. Each school handles licensing, supervision, budgeting, etc. independently.
- Several states indicated that when the distance learning program is only short-term, certification requirements do not apply.
- In North Dakota, distance learning certification is only valid for a two-year period.
- In Ohio, a certified teacher within the school district must evaluate the students' completion of the distance learning instructional objectives and award the official grade.
- In Oklahoma, all OSU programs require a certified teacher in the classroom. Interactive fiber optic projects have a certified teacher from the sending school. Satellite instructors may not be a certified teacher.
- The Virgin Islands has started to participate in teleconferencing. They use librarians with Masters of Library Science (MLS) to handle the technical aspects working in coordination with the local public television station or in some instances, with the local cable stations. Their Department of Education has just been awarded a cable channel for educational broadcasting and they are trying to make sure all schools have working cable television work stations. The department intends to use The Learning Channel and the Mind Extension University in addition to their own programming.

Comments Made by Distance Learning Providers Regarding Chart A:

- TI-IN, the only national network to seek to license its teachers in the states to which it broadcasts its courses, identified 18 states that require distance learning teachers be licensed/certified only in the state in which the programming originates. These states include Arkansas, Florida, Idaho, Illinois, Indiana, Kansas, Louisiana, Maryland, Minnesota, New Hampshire, North Dakota, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, Utah, and Vermont. In addition, Florida, Oklahoma, and Oregon approve the curriculum, not the teachers.
- The Midlands Consortium, which has now ceased to function, had non-licensed instructors teaching courses but required certified teachers to serve as classroom facilitator.
- SERC, which broadcasts in 23 states, formed an agreement with the Council of Chief State School Officers (CCSSO) to recognize the credentials of the educators that the network uses.
- The Massachusetts Corporation for Educational Telecommunications (MCET) uses both certified and non-certified instructors, depending upon the subject being addressed.
- Oklahoma State University uses all certified teachers in the area of instruction. States who use their services accept the Oklahoma certification.

NOTE: The National Educational Agency (NEA) has recommended that states should develop specific policies for licensing teachers involved in distance education. In addition, they also encourage local school districts to develop standards and policies regarding classroom facilitator.

Comments Regarding Chart B:

Funding for distance learning appeared to be the major concern. Only a few states have targeted funds for distance learning, with North Dakota providing as much as $5.2

million for grants to school districts, or groups of school districts, for distance learning projects. Hawaii and Kentucky, each with 100 percent of their schools having access to satellite dishes, followed by Washington with about 75 percent, appear to be the leaders in the nation when it comes to providing satellite equipment.

Comments Regarding Chart C:

- SERC and TI-IN are providing the majority of the distance learning courses, with state level programs and OSU strong contenders.
- Most states indicated some schools were participating with Channel One. While they felt Channel One provided a type of distance learning, most did not consider this involvement as a "formal" distance learning program.
- Wisconsin indicated more than 130 school districts have access to Instructional Television Fixed Signal (ITFS) and two fiber optic networks and they can use this technology to receive distance learning courses. In addition, some local consortia are producing their own courses.
- Maine indicated about 55 schools use ITFS microwave to participate in distance learning.
- Ohio indicated many schools receive their SERC signal through an ITFS signal provided through WVIX-TV and others receive TI-IN through their cable service. There are currently 5 in-state fiber optic distance learning projects under way and several more are in the beginning stage.
- Hawaii indicated all islands can receive the lower satellite channels. However, due to the mountains, some islands can not receive the higher channels.
- New Hampshire indicated very little in the way of distance learning was actually going on. Those schools who do use it, access a variety of providers.

Chart B

FUNDING FOR DISTANCE LEARNING		
STATE	LINE ITEM OR APPROPRIATION	COMMENTS
Alabama	NO	Efforts were made, but so far, no state monies have been provided.
Connecticut	YES	$50,000 ITFS program. Connecticut Public TV has engineering & construction grants.
Florida	NO	
Georgia	NO	
Hawaii	YES	All islands have access to lower satellite channels.
Illinois	NO	
Indiana	NO	
Iowa	NO	
Kentucky	YES	Funds made available indirectly.
Maine	NO	Not now, but funds were available in the beginning of the program.
Maryland	NO	
Minnesota	YES	School districts may levy up to .05 percent of the adjusted net tax capacity of the district or $20,000 for the construction, maintenance, and lease costs of an interactive television system for instructional purposes.
Nevada	NO	
New Hampshire	NO	
New Mexico	YES	Only for a small coop fiber in the eastern part of the state.
New York	NO	Proposals were submitted for the past several years.

Chart B (Cont'd)

FUNDING FOR DISTANCE LEARNING		
STATE	LINE ITEM OR APPROPRIATION	COMMENTS
North Carolina	YES	1.3 million 92-93
North Dakota	YES	5.2 million for grants to school districts and groups of districts.
Ohio	YES	Monies allocated for instructional television may be used for distance learning.
Oklahoma	NO	
Pennsylvania	YES	$300,000 for distance learning grants.
South Carolina	YES	$30,000 for distance learning.
South Dakota	NO	State is funding a 2-way video & audio network for state institutions.
Texas	NO	
Utah	NO	
Vermont	NO	
Washington	YES	Planning grants are available.
West Virginia	YES	$250,000 STAR SCHOOLS matching funds for equipment & courses.
Wisconsin	NO	Does provide the $25,000 for SERC membership.

Question 3: Does your state have a line-item or an appropriation targeted for distance learning?

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Chart C

NUMBER OF SATELLITE DISHES IN STATES AND MAJOR DISTANCE LEARNING PROVIDERS								
STATE	% OF SCHOOLS WITH SATELLITE DISHES	SERC	TI-IN	OSU	STEP	STATE OR LOCAL PROGRAMS	UNIVERSITIES	ITV
Alabama	5%	X	X	X			X	
Connecticut	25%							X
Florida	< 5%	X	X					
Georgia	5%	X						
Hawaii	100%					X		
Illinois	5%		X	X				
Indiana	10%		X					
Iowa	15%	X	X			X		
Kentucky	100%		X					
Maine	< 5%					X	X	
Maryland	1%					X		
Minnesota	25%					X		
Nevada	10%						X	
New Hampshire	8%							
New Mexico	4%		X		X			
New York	6%		X	X		X		
North Carolina	10%	X	X			X		

Chart C (Cont'd)

NUMBER OF SATELLITE DISHES IN STATES AND MAJOR DISTANCE LEARNING PROVIDERS

STATE	% OF SCHOOLS WITH SATELLITE DISHES	SERC	TI-IN	OSU	STEP	STATE OR LOCAL PROGRAMS	UNIVERSITIES	ITV
North Dakota	10%					X		
Ohio	5%	X	X					
Oklahoma	50%		X	X			X	
Pennsylvania	10%	X	X	X				
South Carolina	5%	X	X	X				
South Dakota	5%		X				X	
Texas	10%	X	X	X				
Utah	< 10%					X		
Vermont	N/A					X		
Washington	75%		X	X	X			
West Virginia	18%	X	X	X				
Wisconsin	< 10%	X						

Question 4: Of the total number of public school buildings in your state, what percentage have satellite dishes?
Question 5: Who are the top three providers of distance learning programs to schools in your state?

5. Results From Presentation of Interim Data

In order to get the reactions of educators most likely to be involved in distance learning two presentations regarding the preliminary findings of this study were made: the first, on Monday, November 23, 1992 at the combined conference of the Pennsylvania Association of Supervision and Curriculum Development (PASCD) and the Pennsylvania Association of Educational Communications Technology (PAECT), and the second, on Thursday, January 14, 1993 to the Political and Legislative Strategy Group of the Pennsylvania State Education Association (PSEA). By presenting at these times, the researchers were able to conduct discussions with members from three organizations, heavily involved in media, and obtain valuable feedback on the interim study results.

Seventeen people attended the first session; all 17 held membership in PAECT and 4 also held membership in PASCD. Twenty-two people, all PSEA members, attended the second session.

Slides were used to demonstrate the preliminary data collected from the rural schools survey and other sources. Participant comments were as follows:

- Trying to get around the time factor was the greatest hindrance to using distance learning provided by out-of-state vendors. In some cases, the student had to lose time in two, in-house courses in order to participate in one distance learning program. In fact, two people indicated their schools had started to participate in distance learning but withdrew because it was too hard on the students to straddle two courses and still keep up with their distance learning studies.
- Participants indicated they felt the Department of Education should not require a certified teacher in distance learning classrooms, particularly when the number of students taking a course is low. Several people referred to other states where non-certified people may serve as the distance learning facilitator with apparently good results.
- Some participants felt the results which indicated which courses were being taken by the students maybe skewed by the limited number of programs vendors are currently offering.

- One participant informed the group TI-IN is now offering an elementary Spanish course which some schools may find useful.
- One participant stated the person responding to the survey may not have known where a copy of a certain video being used within the school came from. Therefore, the school may actually have been using more distance learning programs than the respondent realized.
- Another hindrance to distance learning is that commercial vendors require students to sign up for a course for the whole year or a full semester. Several participants indicated full participation, in some cases, may not be necessary. Therefore, vendors should offer partial participation with appropriate fees to support less than full participation.
- There is a general increased interest in providing Latin as an optional foreign language to students.
- Participants felt that while many people participated in teleconferences recently held by the Department of Education, statistics gathered by the survey seemed low in this category. It was felt this may be the result of the survey respondent not being aware the school participated in these teleconferences.
- Participants felt the respondents indicated a low need for training since vendors, such as SERC, provided excellent in-service programs and relatively easy to use products.
- Some participants felt the use of interactive video provided local schools with more flexibility and control.
- While cable may be less expensive, some rural schools simply do not have access to cable.
- Participants cited a need for a broader selection of distance learning courses for students.
- Math and science may have been chosen by students more often since they respond to Advanced Placement needs. In addition, some funding sources are targeted for these areas.

- Participants indicated they learned a great deal from this session and felt they were now better prepared to assist others in their schools to make decisions about distance learning.
- All participants were interested in obtaining a copy of the final report. They were informed the report was the property of the Center for Rural Pennsylvania and the dissemination of the results was under their control. Participants encouraged the Center for Rural Pennsylvania to make the report available to all schools and to all states who contributed data to the study.
- Participants congratulated the Center for Rural Pennsylvania for conducting this study since they felt it was long overdue and would provide valuable information for all involved in distance learning.
- Participants encouraged the Center for Rural Pennsylvania to use the data from this study and move into the next step, which they felt was planning.

See Appendix K for a list of the people who attended this meeting.

F. Sources of Distance Learning Funding and/or Resources

The major factor identified by rural school administrators that inhibited or restricted the level of their involvement in distance learning was the cost of the services and programs. As part of this study, sources of funding and/or resources that may assist rural schools in the implementation of distance leaning were researched. As a result, a guide entitled "Distance Learning Funding Sources" was produced and disseminated to school districts responding to the survey. A copy of this guide can be found in Appendix Q.

There are six major sources of funding for distance learning: (1) the federal government, especially the STAR SCHOOLS grants, (2) the state government, (3) local school district funding, (4) business and industry, (5) private foundations, and (6) a mix of the above.

Federal Funding:

STAR SCHOOLS grants are awarded every two years. The focus of these grants are to assist consortia-type efforts that benefit large geographic areas. Individual school districts, to date, have not been eligible to apply for funding. Pennsylvania, with its involvement with SERC, has benefitted from these funds in several ways. First, schools have been able to purchase satellite and playback equipment at reduced costs. And second, hundreds of students have been able to take distance learning courses for the past five years.

Educational Research and Development Centers, located around the country, provide information about their findings to parents, instructors, and other professionals who can use data for educational purposes. The Research for Better Schools, Inc., located in Philadelphia, is one of these centers.

The U.S. Department of Education conducts several partnership programs that can assist schools to form partnerships in distance learning. These include the Education Partnerships Program: School Improvement Programs: and School, College, and University Partnerships.

The National Science Foundation and the National Telecommunications Facilities Program are agencies that award grants that can be used for distance learning.

NASA (National Aeronautics and Space Administration) publishes a catalog that lists privately produced videodiscs and software on astronomy and space exploration. NASA Spacelink is a free service database that provides information and educational materials.

State Funding:

For the past two years, the State Legislature has provided the Pennsylvania Department of Education (PDE) a line-item in the budget for distance learning. The 1991-92 budget provided $350,000 and in 1992-93, $300,000. PDE receives proposals and makes grants to schools to participate in distance learning projects. See Section II C for detailed information regarding the types of grants given, the schools involved in the grant, and the total amount of the award.

Local Funding:

Many rural schools are located in economically depressed areas and rural school administrators have expressed a concern regarding the funding needed for distance learning. While many of them are participating in distance learning in one form or another, it is obvious there are still many needs in rural schools for the services that are not being met. Rural administrators have recommended the State Legislature increase the level of funding it provides PDE so more schools can participate in distance learning. Some administrators have recommended the State provide low-cost loans to schools interested in purchasing distance learning equipment, while others would like to see direct grants made for this purpose.

Business and Industry:

Rural schools need to develop partnerships with business and industry to offset the costs involved in implementing distance learning programs. Many of these businesses and industries also have grant programs that may be available for distance learning.

Private Foundations:

Rural school districts should seek funding from private foundations. However, this can be a "catch twenty-two" situation. While rural schools need the money for the programs, they often do not have an available staff member who has the time or the expertise to write they often do not have an available staff member who has the time or the expertise to write the grant. Grant writing assistance, however, may be available through the local intermediate units or private consultants. Large libraries carry copies of foundation and corporate directories that provide valuable information about possible funding sources.

A Mix of the Above:

Rural schools must get involved in creative financing in order to fund distance learning programs. Local satellite companies, business, industry, cable companies, telephone companies, private foundations and local school districts should band together to develop distance learning programs that address the needs of rural students and teachers. In many cases, when such partnerships are formed, federal and state monies are often easier to obtain because the community has demonstrated a strong commitment for the program.

In one case, where several school districts formed a distance learning partnership, one school was charged with actually writing the grant while the other schools performed the necessary research. In this manner, they were able to submit a grant without placing an undue burden on any one school.

NOTE: Please refer to Appendix Q for a copy of the guide Distance Learning Funding Sources.

IV. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

The data gathered for this study as shown in Section II, items A through E (the data gathering process) and Section III, items A through F, (the results of the data gathering activities) were carefully analyzed. All of the findings were then examined and conclusions were drawn for each objective. The results of this analysis is as follows:

Objective 1: To determine the need of Pennsylvania's rural school districts for distance learning programs in foreign languages, mathematics, the sciences, and other subjects, as well as those needed for the gifted.

- Many rural schools still need access to distance learning courses, particularly in the areas of statistics, Russian, Japanese, German, the sciences, biology, and environmental study.
- Rural schools have a need for more distance learning courses for their gifted and advanced placement students. Courses identified include languages, mathematics, and college credit for the gifted. Rural schools also have an interest in obtaining advanced placement distance learning courses in calculus & higher mathematics, physics, chemistry, and English and composition.
- Rural schools are demonstrating an increased interest in providing elementary students with distance learning courses in languages.
- Providing the home bound with courses via distance learning was a need also expressed by rural school districts.
- Rural schools would like to use distance learning to provide elementary students with foreign languages.

- Rural schools would like to use distance learning to fill the curriculum requirement of providing students with access to two foreign language courses.

Objective 2: To inventory and describe the distance learning programs available for use in Pennsylvania's rural schools through local school districts, the Pennsylvania Department of Education, the federal government, private companies, and nonprofit organizations; to identify the technologies needed to use these programs as well as the cost involved; and to determine reciprocal certification limitations relating to these programs.

- Rural schools are in need of more information about distance learning programs, the technologies involved, and the associated costs. To address this need, an extensive inventory was completed of the distance learning programs currently available to Pennsylvania's rural schools. The inventory revealed that most of the courses desired by rural schools are available through a variety of vendors.
- Rural schools need assistance to pay the costs involved in installing equipment and implementing distance learning courses. To provide some assistance in this area, a guide which indicates the information needed by rural schools regarding what distance learning programs are available, what equipment is needed, and the costs involved was produced and disseminated.
- Reciprocity is currently not a problem for Pennsylvania rural schools. Current policies permit schools to use distance learning programs by accepting the certification of the teacher from the originating site.

Objective 3: To inventory distance leaning programs currently being used by Pennsylvania's schools and to compare the level of use with the need.

- Most rural schools currently providing students with distance learning courses are focusing on mathematics, foreign languages, the sciences, economics, and world geography. However, many of these schools need more programs to address the needs of other students for distance learning courses. Based on the responses to this study, there could be at least 1,020 rural students who could benefit by participation in distance learning but are being denied that opportunity.

- Rural schools may fall even further behind their wealthier counterparts if their needs for distance learning are not met.
- Rural school involvement in distance learning in Pennsylvania would increase dramatically with the adoption of a comprehensive statewide plan that addresses their unique needs.
- Rural schools must have people on the staff who are knowledgeable about distance learning and have the time to assist teachers to use the technologies properly.
- Rural school districts must conduct a distance learning needs assessment among its teachers and students to determine what is needed to enhance the teaching/learning environment.
- Rural school districts would benefit by having access to additional staff members within the Pennsylvania Department of Education who are knowledgeable about all facets of distance learning.

Objective 4: To document positions held by educational agencies and organizations on distance learning, including but not limited to the Pennsylvania Department of Education, the Pennsylvania State Education Association, the Pennsylvania Association of Rural & Small Schools, the National Education Association, the Parent Teacher Association, and the Federal Department of Education.

- Most educational agencies and organizations on distance learning do not currently have formal position papers on distance learning. However, several educational agencies have indicated that they plan to develop distance learning position papers in the near future.

- The National Education Association has issued a report entitled NEA Special Committee on Telecommunications. This particular paper may influence local educational agencies as they deal with the integration of distance learning in their schools.

Objective 5: To determine how state policy can help satisfy rural school districts' need for distance learning education in foreign language, mathematics, the sciences, and other subjects, not presently being met by existing programs.

- Rural schools have expressed an interest in obtaining relief from the mandate that requires a certificated teacher in the classroom even with small numbers of distance learning students. Since their staffs are very small, they claim they do not have a certificated teacher to handle the distance learning classroom and therefore cannot participate in such activities.
- States using a non-certificated person as the distance learning classroom facilitator indicated they have not experienced any significant problems by using an employee in this capacity. Only 3 of 29 states responding to the survey indicated they had a similar requirement of a certificated teacher in the distance learning classroom. Pennsylvania can expect increased pressure from rural schools to obtain relief from this mandate.
- National, state and local teacher organizations are concerned about how the use of distance learning in rural schools will affect job security.
- As new educational regulations and guidelines are developed, care must be exercised to take into consideration the unique characteristics and needs of distance learning.

Objective 6: Identify sources of funding and/or resources that may assist rural schools in implementing distance learning programs in foreign languages, mathematics, the sciences, and other subjects/programs.

- Since the cost of distance learning was identified as a major inhibiting factor when implementing distance learning programs, a guide which identifies possible funding sources that rural schools might use was prepared and disseminated to rural schools (see Appendix Q).

- The Pennsylvania State Legislature should increase the current line-item in the state budget for the Department of Education to provide more rural schools the opportunity to participate in distance learning activities.
- Partnerships should be formed to help rural schools fund the acquisition of equipment, to offset registration fees, and/or to share instructors between and among school districts.
- Rural school districts must use creative financing mechanisms to help support the use of distance learning.

B. Key Recommendations

An examination of the research completed as a result of this study, resulted in sixteen key recommendations. It was determined that the recommendations fell into four distinct categories: (1) State government issues; (2) Pennsylvania Department of Education issues; (3) Organizations critical to the delivery of programming; and (4) Rural school district issues. Under these categories the recommendations are subdivided in the following categories: Planning, Funding, Legislative, Educational, Programmatic, and Evaluative. A summary of the recommendations to bring about the desired changes in Pennsylvania's distance learning efforts follows.

1. State Government Issues

Funding

Recommendation 1. Funds should be provided by the state government to develop a statewide plan to address the needs of all of Pennsylvania's residents for distance learning.

Recommendation 2. Funds should be made available to the Pennsylvania Department of Education to provide additional staff needed to assist educators to implement distance learning effectively.

Legislative

Recommendation 3. Legislators should make distance learning a priority and increase the line item for distance learning to $1,000,000 so the Pennsylvania Department of Education can fund the distance learning programs that respond to the needs of rural students and teachers.

Recommendation 4. Regulations should be provided that will allow schools to access all types of telecommunication more cost-effectively.

Educational

Recommendation 5. The Center for Rural Pennsylvania should make the results of this study available to schools and to other states interested in the results.

2. Pennsylvania Department of Education Issues

Planning

Recommendation 6. The Pennsylvania Department of Education should assist schools in conducting needs assessments and developing long-range plans for the integration of distance learning into the curriculum.

Funding

Recommendation 7. A central resource center, located within the Department of Education, should be established. This resource center could be funded by the implementation of a formula that would require other agencies to provide a proportionate share of the money to get the distance learning services and training they need.

Recommendation 8. Non-certified school personnel should be permitted to serve as distance learning classroom facilitators.

Legislative

Recommendation 9. The revised Chapter 49 should include language that recognizes the importance of teachers learning how to use various technologies, with a particular emphasis on distance learning.

Recommendation 10. Chapter 49 should include the requirement for administrators to complete courses for the management of educational technology and the school library media center.

Evaluative

Recommendation 11. The Pennsylvania Department of Education should monitor the distance learning programs it funds, evaluate the results, and disseminate information about successful programs so others may adopt or adapt proven strategies.

Recommendation 12. The Pennsylvania Department of Education and institutions of higher education should conduct research that focuses on the impact that distance learning has on student achievement and teacher professional development, student and teacher attitudes about learning, student retention, and the effect that expanded course offerings via distance learning has on career and educational choices made by Pennsylvania students.

3. Organizations Critical to the Delivery of Programming

Planning

Recommendation 13. Cable companies, telephone companies, and satellite vendors within Pennsylvania should make a concerted effort to wire/equip all schools, with a particular emphasis on those considered rural.

Funding

Recommendation 14. All schools should be able to participate in Pennsylvania's instructional television program without having to pay per-student membership fees.

4. Rural School Issues

Educational

Recommendation 15. Higher education should provide instruction designed to inform prospective and in-service teachers about distance learning, including what it is, what programs are currently available, what technologies are being used and how they function, how student achievement can be tested, and what pedagogies are needed in order to use distance learning effectively and efficiently.

Recommendation 16. Higher education should make its courses available to teachers and administrators who are seeking certification, degrees, and professional development through the use of distance learning technologies.

V. GLOSSARY OF TERMS

Technologies available.

Audiographics: Advanced computer application in which computer interaction is augmented by two-way, real-time, audio communication. Audio, data, and graphics are shared over regular telephone lines, allowing users in different locations to work on the same application simultaneously.

Cable T.V.: Paid television delivered over private lines. Cable can provide one-way audio and video to any location in the state with an operating cable company.

Closed Circuit T.V.: The transmission and reception of video and audio signals through a cable system. There is no interaction available for students with this medium.

Fax Machine: Transmits signals over telephone lines allowing the reproduction of a document from one site to another.

Fiber Optics: Hair-thin, flexible glass rods that use light to transmit audio, video, and data signals. Fiber optic messages are particularly suitable for digital communications since light impulses go on and off to transmit signals.

Microwave: Capable of supporting the full range of audio/video/graphics and data transmissions working along with two-way satellite circuits. These systems are often used as a bridge within hardwired systems, e.g., cable or common carrier. They may prove to be the most economical alternative in the more remote areas of the state.

Public T.V.: Provides one-way audio/video programming and other services to students and educators throughout the state. Access to these resources are readily available and economical.

Satellite: A system where a downlink station is capable of receiving programming from long distances via a space satellite.

Video Broadcast: Transmission of video and audio signals by electronic means originating from videotape, film, videocassette, or videodisc. Transmission can originate for a VCR, satellite, VHF or UHF television station, or cable system.

Formal Distance Learning Programs

Midlands Consortium: System consisting of six mid-west universities. Broadcast instruction via satellite and students interact by telephone with instructor. This consortium is no longer in existence. Its programs were taken over by Oklahoma State University.

OSU- Oklahoma State University: Offers satellite delivery of programs in science, mathematics, language, the arts, and social studies.

SERC- Satellite Educational Resources Consortium: This 22-state consortium delivers over 1500 hours of educational programming via satellite to Pennsylvania schools. A variety of in-service and staff development workshops are also available.

TI-IN Network: A private corporation offering satellite delivered programs in science, mathematics, language, the arts, and social studies.

Cable Programs

A&E- Arts & Entertainment: A cable channel devoted to fine arts (e.g., ballet, symphony, stage production) and cultural programming.

CNN Newsroom: An educational news programs provided over cable by Turner Broadcasting Systems that is devoted to current news events and discussions and is supported by teacher guides.

C-Span: Closed circuit television coverage of the U.S. Senate and Congressional proceedings.

PENNARAMA: The Pennsylvania State University in conjunction with the Pennsylvania Educational Communications Systems offers continuing adult education courses to over 800,000 household statewide.

Satellite Programs

Channel One: A satellite-delivered news program provided by Whittle Communications containing paid advertisements.

ITV- Instructional Television: Educational television programs offered by members of the Pennsylvania Public Television Network to schools on a per-student fee basis.

NISS- National Instructional Satellite Services: A conglomeration of more than 1200 hours of the most often selected instructional television programming delivered by satellite. Programming is selected by public television stations and related agencies.

ITFS- Instructional Television Fixed Signal: A series of towers equipped with transmitters, usually placed no more than twenty-five to thirty-five miles apart, that carry a low-cost one-way television signal from tower to tower.

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CENTER FOR RURAL PENNSYLVANIA

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APPENDIX A - R
TO
FINAL REPORT
FEBRUARY, 1993

APPENDIX A

Additional Recommendations From the Study

Appendix A

Additional Recommendations from the Study

In the main body of the report, sixteen (16) key recommendations were made based on the results of this study. Included in this appendix are additional recommendations the research team felt were important to the successful delivery of distance learning programs in rural school districts in Pennsylvania. These recommendations are also divided into four distinct categories: (1) State government issues; (2) Pennsylvania Department of Education issues; (3) Organizations critical to the delivery of programming; and (4) Rural school district issues. Under these categories the recommendations are divided in the following sub-categories: Planning, Funding, Legislative, Educational, Programmatic, and Evaluative. The numbering system for these recommendations will pick up where the numbering system for the recommendations contained in the main body of the report left off.

1. State Government Issues

Planning

Recommendation 17. All state agencies should investigate the possibility of using distance learning to keep their clients well-informed.

Recommendation 18. A strong emphasis should be placed on including rural educators on any committees or groups charged with developing plans for the use of distance learning in Pennsylvania.

Funding

Recommendation 19. Rural schools should be given special consideration when applying for state funds to purchase distance learning equipment.

Recommendation 20. Funds should be provided for Pennsylvania institutions of higher education, public television stations, intermediate units and other state agencies to produce distance learning programs to fill the specific needs of students and teachers.

Recommendation 21. When state agencies use distance learning as a mode to pass on information or train their clients in the field, consideration should be given to assessing participants a small registration fee to offset costs.

Legislative

Recommendation 22. The Education Committees in both the House and the Senate should examine the work previously done by Senator Rhoade's Distance Learning Task Force (see Appendix H), the results of previous studies done on distance learning, the results of this study, and move ahead in its efforts to formulate a plan to meet the needs of the Commonwealth's residents for distance learning. The Department of Education needs to play a major role in developing the section dealing with K-12 education.

Recommendation 23. Regulations which govern Internet should foster the active cost-effective participation of schools.

2. Pennsylvania Department of Education Issues

Planning

Recommendation 24. The Pennsylvania Department of Education should consider announcing the Request for Applications for distance learning funding for the year 1993-1994 earlier so schools have a longer period of time to plan and respond.

Recommendation 25. The Pennsylvania Department of Education should consider other strategies when reading and ranking the proposals submitted in response to the RFA for distance learning grants in order to be as fair as possible in the distribution of funds.

Recommendation 26. As part of Recommendation 9, the Pennsylvania Department of Education should develop a comprehensive K-12 learning plan.

Recommendation 27. The Pennsylvania Department of Education should strive to form partnerships with business and industry to find ways to fund fiber optic networks other than using monies from the current line item provided by the State Legislature.

Funding

Recommendation 28. Funds should be made available so that institutions of higher education may provide distance learning opportunities for K-12 students and teachers.

Recommendation 29. Funds should be made available to bring the balance of the rural school districts into the ACCESS PENNSYLVANIA database network.

Legislative

Recommendation 30. The Pennsylvania Department of Education should be charged with establishing a central training agency for distance learning and to serve as the primary source of information and assistance for other state agencies to use distance learning technologies.

Recommendation 31. Pennsylvania should continue to accept the credentials of the educators that distance learning providers use.

Recommendation 32. Consideration should be given to creating a separate section within the Chapter 5, Curriculum Regulations, to provide all the guidelines necessary so educators can implement distance learning programs which adhere to the standards used to judge regular classroom courses.

Recommendation 33. No new certificate should be issued for distance learning. The pedagogical skills and competencies necessary to understand and implement distance learning should be made part of the educational curriculum for all teachers and administrators.

Educational

Recommendation 34. The Pennsylvania Department of Education should be charged with providing leadership to educate other state departments about distance learning.

Recommendation 35. The Pennsylvania Department of Education should conduct a teleconference on distance learning.

Recommendation 36. Staff in the Pennsylvania Department of Education who will be involved in examining strategic plans should receive in-service training in distance learning so they fully understand its unique characteristics.

3. Organizations Critical to the Delivery of Programming

Educational

Recommendation 37. School administrators and teachers must learn how to access electronic bulletin boards which contain information about the availability of distance learning courses.

Recommendation 38. Vocational-technical school administrators should provide in-service education in all facets of distance learning for the members of their advisory groups.

Programmatic

Recommendation 39. Distance learning providers should strive to expand the number of course offerings, particularly on the elementary level.

Recommendation 40. Distance learning vendors should provide a fee structure for students who do not participate in a course for the whole year or for the full semester.

Recommendation 41. Distance learning providers should conduct in-service training to instruct teachers how to use their programs and support materials.

Recommendation 42. Agencies within Pennsylvania should produce distance learning programs that would help fill specific educational needs of students and teachers.

4. Rural School Issues

Planning

Recommendation 43. Before getting involved in distance learning, schools districts should conduct a needs analysis among their faculty and students to determine the actual level of need for such participation.

Recommendation 44. When Pennsylvania school districts prepare their strategic plans to submit to the Department of Education, they should be certain to include the strategies planned for using distance learning.

Recommendation 45. Teachers involved in distance learning programs being taken by students should be included on teams whose responsibility it is to develop curriculum, formulate long-range plans, and any other activities that focus on the delivery of curriculum.

Recommendation 46. State and local educational agencies should be encouraged to examine the distance learning policy statements of NEA, AFT, and CCSSO when developing distance learning policies or implementing distance learning in the K-12 environment.

Educational

Recommendation 47. School superintendents should provide distance learning in-service courses for all their teachers and administrators.

Recommendation 48. Schools should make a concerted effort to inform parents about all facets of distance learning.

Recommendation 49. Schools should use the power of distance learning to help teachers and administrators with their professional development.

Programmatic

Recommendation 50. Schools should provide student learner outcomes and planned courses for their distance learning programs.

Recommendation 51. Appropriate methods should be employed to provide assistance to students who are having difficulty mastering subject content which is part of a distance learning course.

Recommendation 52. Schools should examine the potential of distance learning to fill the unique needs of its students for independent study, advanced placement, and language requirements.

Recommendation 53. More schools, including vocational-technical schools, should form partnerships with one another, as well as with business and industry, to share programs and courses via distance learning.

APPENDIX B

Five Year Plan Summary

EXAMINATION OF THE LONG RANGE PLANS SUBMITTED BY RURAL SCHOOLS TO PDE AND THE ADDITION OF WHAT IS CURRENTLY HAPPENING IN THESE SCHOOLS IN THE AREA OF DISTANCE LEARNING

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Albert Gallatin	2	1	23	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Aliquippa	3	27	3	87-92	YES	No mention of distance learning in plan. Now participating in Channel One.
Allegheny-Clarion Valley	1	6	14	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Altoona Area	4	8	6	91-96	YES	Provides distance learning thru fax, cable for CNN, Pennarama, & CSpan, public TV, NISS, and computers. Member of WPSX ITV & Learning Link. Has 3 ACCESS PENNSYLVANIA sites.
Annville-Cleona	5	13	34	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Antietam	6	14	5	91-96	NO	No mention of distance learning in plan.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Apollo Ridge	7	28	2	91-96	NO	Developing outcome-based learning. ACCESS PENNSYLVANIA member.
Armstrong	8	28	2	88-93	NO	No mention of distance learning in plan. Has 6 ACCESS PENNSYLVANIA sites.
Athens Area	9	17	7	89-93	NO	Expanding use of computer technology. ACCESS PENNSYLVANIA member.
Austin Area	10	9	45	88-93	YES	Using satellite for SERC & TI-IN. Participated in teleteaching 91-92. Member of WPSX ITV & Learning Link. Received a PDE Distance Learning Grant in 92-93.
Avella Area	11	1	55	89-94	YES	Providing courses thru OSU; will be participating in SERC 92-93. ACCESS PENNSYLVANIA member.
Avon Grove	12	24	13	89-94	NO	Incorporating computer applications. Member of Learning Link. ACCESS PENNSYLVANIA member.
Bald Eagle Area	13	10	12	88-93	NO	No mention of distance learning in plan. Member of WPSX ITV.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Bangor Area	14	20	42	89-94	NO	No mention of distance learning in plan. Member of WLVT ITV. ACCESS PENNSYLVANIA member.
Beaver Area	15	27	3	87-92	NO	Focused on computer education Has 2 ACCESS PENNSYLVANIA sites.
Bedford Area	16	8	4	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Belle Vernon Area	17	7	57	89-94	YES	No mention of distance learning in plan. Now participating in Channel One Using cable for CNN. Providing closed TV. Has 3 ACCESS PENNSYLVANIA sites.
Bellefonte Area	18	10	12	88-93	NO	No mention of distance learning in plan. Member of WPSX ITV & Learning Link. ACCESS PENNSYLVANIA member. Also member of LIN-TEL.
Bellwood-Antis	19	8	6	89-94	NO	Goal: Develop a schedule of improved educational technology and options. $50,000 was allocated to develop and implement a technology plan. Using cable for CNN & CSpan. Access to public TV, fax, & microwave ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Benton Area	20	16	17	89-94	YES	Goal: To provide a learning atmosphere which includes state-of-the-art equip. (5-year budget $75,000). Participated in teleteaching 91-92. Now participating in Channel One. Member of WVIA ITV & Learning Link. ACCESS PENNSYLVANIA member.
Berlin Brothersvalley	21	8	48	90-95	NO	Enhance the use of computers K-12. ACCESS PENNSYLVANIA and LIN-TEL member.
Bethlehem Area	22	20	42	88-93	YES	Enhance the use of computer applications. Using satellite for NASA in connection with their planetarium. Member of WLVT ITV. LIN-TEL member.
Bethlehem-Center	23	1	55	89-94	YES	Participating in SERC and using NASA to supplement science program. Has 2 ACCESS PENNSYLVANIA sites.
Big Beaver Falls Area	24	27	3	87-92	NO	No mention of distance learning in plan. Member of Learning Link. Has 2 ACCESS PA sites. LIN-TEL member.
Big Spring	25	15	19	87-92	NO	No mention of distance learning in plan. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Blackhawk	26	27	3	91-96	YES	No mention of distance learning in plan. Has 3 ACCESS PENNSYLVANIA sites.
Blacklick Valley	27	8	9	91-96	YES (2)	Using satellite for SERC & Channel One Member of WPSX ITV. ACCESS PENNSYLVANIA member.
Blairsville-Saltsburg	28	28	29	91-96	NO	Developing outcome-based learning. Has 2 ACCESS PENNSYLVANIA sites. Received PDE Distance Learning Grant to cooperate with Indiana University.
Bloomsburg Area	29	16	17	88-93	YES (2)	One dish is used for Channel One. Adjustable dish is used for providing distance learning from other sources. Member of WVIA ITV & Learning Link. ACCESS PENNSYLVANIA member.
Blue Mountain	30	28	46	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Blue Ridge	31	19	50	88-93	YES	Participating in Channel One. Using cable for CNN, public TV & fax. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Boyertown	32	14	5	87-92	YES	Participated in SERC 91-92. Member of WLVT ITV & Learning Link. Has 3 ACCESS PENNSYLVANIA sites.
Bradford Area	33	9	41	91-96	YES	Participating in Channel One; using public and cable TV as well as fax. Member of WPSX ITV & Learning Link. Has 2 ACCESS PENNSYLVANIA sites.
Brandywine Hgts. Area	34	14	5	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Brockway Area	35	6	30	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA and LIN-TEL member.
Brookville Area	36	6	30	89-94	NO	No mention of distance learning in plan. Member of WPSX ITV.
Brownsville Area	37	1	23	87-92	NO	Targeted 1992 for outcome-based learning. ACCESS PENNSYLVANIA member.
Burgettstown Area	38	1	55	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Burrell	39	7	57	89-94	NO	No mention of distance learning in plan. Has 2 ACCESS PENNSYLVANIA sites.
Butler Area	40	4	8	90-95	NO	Revising K-12 curriculum. Member of Learning Link. Has 2 ACCESS PENNSYLVANIA sites. Member of LIN-TEL.
California Area	41	1	55	89-94	YES	Phased out IA introduced Technology. ACCESS PENNSYLVANIA member.
Cambria Heights	42	8	9	88-93	YES	Distance learning from OSU. ACCESS PENNSYLVANIA member.
Cameron County	43	9	10	90-95	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Camp Hill	44	15	19	88-93	NO	Expand the use of computers in elementary. Member of Learning Link. ACCESS PA member.
Canon-McMillan	45	1	54	89-94	YES (2)	Participating in SERC and Channel One Using cable for CNN, public TV, closed TV, fax, and computers. Using audiographics internally. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Canton Area	46	17	7	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Carlisle Area	47	15	19	89-94	NO	No mention of distance learning in plan. Member of WITF ITV & Learning Link. Has 2 ACCESS PENNSYLVANIA sites.
Carmichaels Area	48	1	27	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Center Area	49	27	3	88-93	NO	Goal: more time for individual study. Has 2 ACCESS PENNSYLVANIA sites.
Central Cambria	50	8	9	91-96	NO	Developing outcome-based learning courses. ACCESS PENNSYLVANIA and LIN-TEL member.
Central Columbia	51	16	17	91-96	YES	Using cable for CNN, Pennarama, A & E, and CSpan; also using public TV, computers, & NASA database. Participated in teleteaching 91-92. Member of WVIA & Learning Link. Has 2 ACCESS PENNSYLVANIA sites and two LIN-TEL sites .

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Central Dauphin	52	15	20	89-94	YES	Goal: Increase the use of interactive video technology. Now using SERC. Member of WITF ITV & Learning Link. Has 5 ACCESS PENNSYLVANIA sites.
Central Fulton	53	11	26	88-93	YES	Participating in SERC & OSU. Participated in teleteaching 91-92. Using cable for CNN, A & E, Discovery, & headline news. Also using public TV, closed TV & video. ACCESS PENNSYLVANIA member.
Central Greene	54	1	27	87-92	YES (2)	Participating in Channel One and SERC. Using cable for CNN & CSpan; also using public TV, fax, & video. Received a PDE distance learning Grant in 92-93. ACCESS PENNSYLVANIA member.
Central York	55	12	59	90-95	NO	No mention of distance learning in plan. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA member.
Chambersburg Area	56	12	25	88-93	YES	Using dish for X-PRESS*X-CHANGE. Records other programs; also uses cable for CNN, A&E, & CSpan. Provides fax & computers for distance learning. Has 4 ACCESS PENNSYLVANIA sites and two LIN-TEL sites.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Charleroi Area	57	1	55	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Chartiers-Houston	58	1	55	89-94	YES	Participated in SERC 91-92. ACCESS PENNSYLVANIA member.
Chestnut Ridge	59	8	4	89-94	YES (2)	Participates in SERC, OSU & Channel One. Was also a SERC pilot site. Using cable for CNN, A&E, CSpan & Discovery. Uses public TV & closed TV. ACCESS PENNSYLVANIA and LIN-TEL member.
Clarion Area	60	6	14	88-93	NO	No mention of distance learning in plan. Member of WPSX ITV. ACCESS PENNSYLVANIA and LIN-TEL member.
Clarion-Limestone Area	61	6	14	88-93	NO	Focused on career awareness in plan. Member of WPSX ITV & Learning Link. ACCESS PENNSYLVANIA and LIN-TEL member.
Claysburg-Kimmel	62	8	6	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Clearfield Area	63	10	15	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Coatesville Area	64	24	13	88-93	NO	Goal: To provide students with learning experiences that nurture & encourage participation in post-secondary educational institutions. Member of Learning Link. ACCESS PENNSYLVANIA member.
Cocalico	65	13	32	89-94	YES	Using dish for Channel One. Has 2 ACCESS PENNSYLVANIA sites.
Columbia Borough	66	13	32	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Commodore Perry	67	4	37	91-96	NO	No mention of distance learning in plan.
Conemaugh Twp. Area	69	8	48	89-94	NO	No mention of distance learning in plan. Has 2 ACCESS PENNSYLVANIA sites. Also LIN-TEL member.
Conemaugh Valley	70	8	9	91-96	NO	Developing outcome-based learning. ACCESS PA and LIN-TEL member.
Conestoga Valley	71	13	32	86-91	NO	No mention of distance learning in plan. Using Cable TV for CNN. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA and LIN-TEL member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Conewago Valley	68	12	1	86-91	NO	No mention of distance learning in plan. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA member.
Conneaut	72	5	18	89-94	NO	Plan discusses using distance learning cable programs. Member of WQLN ITV and participates in Learning Link. Has 3 ACCESS PENNSYLVANIA sites.
Connelsville Area	73	1	23	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Conrad Weiser	74	14	4	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Cornwall-Lebanon	75	13	34	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA and LIN-TEL member.
Corry Area	76	5	22	88-93	YES	Participated in SERC and teleteaching in 91-92. Also using cable TV, public TV, closed TV, fax & computers. Member of WQLN and Learning Link. ACCESS PENNSYLVANIA member .

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Coudersport Area	77	9	45	88-93	YES	Considering Teleteaching for 92-93. Using dish for TI-IN. Also using cable for CNN & CSpan. Member of WPSX ITV & Learning Link. ACCESS PENNSYLVANIA site Rec'd. PDE Distance Learning Grant 92-93.
Cranberry Area	78	6	53	90-95	NO	Participated in Teleteaching 91-92. Using cable for CNN. Also using fax & computers for distance learning. ACCESS PA and LIN-TEL member.
Crawford Central	79	5	18	88-93	YES	Participating in SERC & OSU. Also using cable for CNN, Pennarama, Discovery, & X-PRESS. Using fax, & computers for distance learning. Member of WQLN and Learning Link. Has 3 ACCESS PENNSYLVANIA sites.
Crestwood	80	18	35	88-93	YES (2)	Using one dish for Channel one and the other for recording programs and teleconferences for teachers. ACCESS PENNSYLVANIA member.
Cumberland Valley	81	15	19	91-96	NO	Established a closed circuit TV system. ACCESS PENNSYLVANIA and LIN-TEL member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Curwensville Area	82	10	15	90-95	YES	Participated in SERC 91-92. Also uses cable, Public TV, video, computers & fax for distance learning. Member of WPSX ITV. ACCESS PENNSYLVANIA member
Dallas	83	18	35	87-93	NO	No mention of distance learning in plan. LIN-TEL member.
Dallastown Area	84	12	59	89-94	NO	No mention of distance learning in plan. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA member.
Daniel Boone	85	14	5	91-96	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Danville Area	86	16	40	88-93	YES (2)	Participates in SERC, TI-IN, Channel One, and teleteaching. Uses cable for CNN and CSpan. Member of WVIA ITV & Learning Link. ACCESS PENNSYLVANIA and LIN-TEL member.
Delaware Valley	87	20	60	92-96	YES	Goal: Increase access to outside sources of information thru inter-active telecommunications, satellites, cable TV, laser discs, and CD Roms. Using cable for CNN. Participating in TI-IN. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Derry Area	88	7	57	88-93	NO	No mention of distance learning in plan. Currently using ITV. Has 2 ACCESS PENNSYLVANIA sites.
Derry Township	89	15	20	91-96	YES	Goal: To utilize instructional strategies which focus on the individual. Using satellite for teleconferences. Using cable for CNN, A&E, also uses ITV, closed TV, & fax. Every elementary classroom has access to cable. Member of WITF TV & Learning Link. Has 2 ACCESS PENNSYLVANIA and LIN-TEL sites.
Donegal	90	13	32	91-96	YES	Using dish for NISS and SERC. Also uses cable TV for CNN. Has 6 ACCESS PENNSYLVANIA sites and 1 LIN-TEL site.
Dover Area	91	12	59	88-93	YES	Participating in Channel One. Also using cable for CNN, A&E, & CSpan. Accesses public TV, closed TV, fax, and computers for distance learning. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA member.
Dowingtown Area	92	24	13	87-93	YES	No mention of distance learning in plan. Using dish for teleconferences. Member of Learning Link. Has 3 ACCESS PENNSYLVANIA sites.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
DuBois Area	93	6	15	88-93	NO	Goal: Cooperate with a college to provide an after school enrichment program. Member of WPSX ITV. ACCESS PENNSYLVANIA and LIN-TEL member.
East Lycoming	94	17	36	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
East Pennsboro Area	95	15	19	88-93	NO	Goal: Students will be able to access database knowledge & apply it in real life situations. ACCESS PENNSYLVANIA member.
East Stroudsburg Area	96	20	39	86-90	NO	No mention of distance learning in plan. Has 2 ACCESS PENNSYLVANIA sites.
Eastern Lancaster Co.	97	13	32	91-96	NO	Upgrading technology equipment. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA and LIN-TEL member.
Eastern Lebanon Co.	98	13	34	91-96	NO	Goal: Provide telecommunications capabilities to enhance student knowledge. Has 2 ACCESS PA sites and one LIN-TEL site.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Eastern York	99	12	59	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Easton Area	100	20	42	87-92	NO	Introduction to computers thru Math and Science. ACCESS PENNSYLVANIA member. Member of LIN-TEL.
Elizabethtown Area	101	13	32	88-93	NO	No mention of distance learning in plan. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA and LIN-TEL member.
Elk Lake	102	19	50	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Ellwood City Area	103	4	33	87-92	NO	Goal: Computer technology plan for use in classroom. ACCESS PENNSYLVANIA site.
Ephrata Area	104	13	32	88-93	YES	Participates in SERC. Uses cable for CNN, Pennarama, A&E, CSpan, & Discovery. Computers & fax for distance learning. Has 2 ACCESS PENNSYLVANIA sites and one LIN-TEL site.

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SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Everett Area	105	8	4	91-96	NO	Goal: Use satellite TV courses & resources as a supplement to courses. ACCESS PENNSYLVANIA member.
Exeter Township	106	14	5	86-91	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Fairfield Area	107	12	1	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA and LIN-TEL member.
Fairview	108	5	22	88-93	NO	Investigating foreign language at elementary level; purchasing computers. Member of WQLN & Learning Link. ACCESS PENNSYLVANIA member.
Fannett-Metal	109	12	25	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Farrell Area	110	4	37	88-93	YES (2)	One dish used for Channel One, other is only C Band which is used to record programs for teachers. ACCESS PENNSYLVANIA member.
Ferndale Area	111	8	9	90-95	NO	Developing Madeline Hunter system.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Fleetwood Area	112	14	5	88-93	NO	Expand foreign language offerings. ACCESS PENNSYLVANIA member.
Forbes Road	113	11	26	91-96	NO	No mention of distance learning in plan. Using computers for distance learning. ACCESS PENNSYLVANIA member.
Forest Area	114	6	24	89-94	NO	Goal: Set up cooperative program in science with Clarion University. Member of WPSX ITV. Has 2 ACCESS PENNSYLVANIA sites.
Forest City Regional	115	19	50	90-95	NO	No mention of distance learning in plan.
Forest Hills	116	8	9	91-96	NO	Developing outcome-based learning. Has 2 ACCESS PENNSYLVANIA sites and one LIN-TEL site.
Fort Cherry	117	1	55	88-93	YES (2)	Participated in SERC 91-92. Also participates in Channel One. Uses fax and computers for distance learning. ACCESS PENNSYLVANIA member.
Fort Le Boeuf	118	5	22	88-93	NO	Focused on technology curriculum. Member of WQLN & Learning Link. Has 2 ACCESS PENNSYLVANIA sites.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Franklin Area	119	6	53	90-95	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Franklin Regional	120	7	57	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Frazier	121	1	23	87-92	YES	Development of a long range plan for technology. Now participating in Channel One. Using cable for CNN, A&E, & CSpan; using public TV, closed TV, fax, and video for distance learning. ACCESS PENNSYLVANIA member.
Freedom Area	122	27	3	88-93	NO	Focusing on computer literacy. Has 2 ACCESS PENNSYLVANIA sites.
Freeport Area	123	28	2	88-93	NO	No mention of distance learning in plan. LIN-TEL member.
Galeton Area	124	9	45	88-93	NO	No mention of distance learning in plan.
General McLane	125	5	22	91-96	YES	Goal: Technology will be integral to all phases of instruction by 1996. Uses dish for SERC & teleconferences. Member of WQLN ITV & Learning Link. ACCESS PENNSYLVANIA and LIN-TEL member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Gettysburg Area	126	12	1	90-95	YES	Uses dish for teleconferences and programs for students & teachers. ACCESS PENNSYLVANIA and LIN-TEL member.
Girard	127	5	22	89-94	NO	Upgrading computer instruction. Member of WQLN & Learning Link. ACCESS PENNSYLVANIA member.
Glendale	128	10	15	88-93	NO	No mention of distance learning in plan. Member of WPSX ITV.
Governor Mifflin	129	14	5	87-92	NO	No mention of distance learning in plan. Member of Learning Link. Has 2 ACCESS PENNSYLVANIA sites.
Great Valley	130	24	13	89-94	YES	Goal: To research & implement the use of satellite distance learning. Has 10 channels on in-house TV. Participated in SERC 91-92. Was also a SERC pilot site. Member of Learning Link. ACCESS PA and LIN-TEL member.
Greater Johnstown	131	8	9	90-95	NO	Goal: Provide curriculum options to increase student achievement. Member of WPSX ITV & Learning Link. Has 2 ACCESS PENNSYLVANIA sites and one LIN-TEL site.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Greater Latrobe	132	7	57	87-92	NO	Expand computer lab technology. Has 2 ACCESS PENNSYLVANIA sites.
Greater Nanicoke Area	133	18	35	89-94	NO	Information process via computers. ACCESS PENNSYLVANIA member.
Greencastle-Antrim	134	12	25	87-92	YES	Using teleconferences and programs for students & teachers. Renovating room for distance learning. Will also be participating in Channel One when room is finished. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA and LIN-TEL member.
Greensburg-Salem	135	7	57	89-94	YES	No mention of distance learning in plan. Currently participating in Channel One. Using cable for CNN, A&E, & CSpan. Has 2 ACCESS PENNSYLVANIA sites.
Greenville Area	136	4	37	89-94	NO	Goals: Communicate availability of latest technical advancements. Develop a planned program of acquisition for technical equipment. Member of Learning Link. ACCESS PENNSYLVANIA member.
Greenwood	137	15	44	87-92	NO	Enhance word processing course. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Grove City Area	138	4	37	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Halifax Area	139	15	20	89-94	NO	No mention of distance learning in plan. Member of WITF ITV & Learning Link.
Hamburg Area	140	14	5	88-93	NO	Goal: Make fuller use of technology advancements to improve the rate and degree of learning. Member of Learning Link. ACCESS PENNSYLVANIA member.
Hanover Area	141	18	35	92-97	NO	Upgrading computers for CAI. Developing AP English course. Member of Learning Link.
Hanover Public	142	12	59	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Harbor Creek	143	5	22	87-92	NO	No mention of distance learning in plan. Member of WQLN ITV & Learning Link.
Harmony Area	144	10	15	89-94	YES	Participating in SERC, TI-IN, & OSU. Plans to participate in Channel One. PDE Distance Learning Grant 92-93.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Hazleton Area	145	18	35	90-95	NO	Goal: To increase use of technology in the delivery & management of curriculum & instruction. ACCESS PENNSYLVANIA member.
Hempfield	147	13	32	90-95	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA and LIN-TEL member.
Hempfield Area	146	7	57	88-93	NO	No mention of distance learning in plan. Using cable for CNN, Pennarama, A&E, CSpan, & PBS specials; uses public TV, fax, & computers for distance learning. ACCESS PENNSYLVANIA and LIN-TEL member.
Hermitage	148	4	37	89-94	YES	No mention of distance learning in plan. Participating with Channel One. Uses cable TV, SCI-NET, & computers.
Hollidaysburg Area	149	8	6	90-95	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA and LIN-TEL member.
Homer-Center	150	28	29	91-96	NO	Developing outcome-based learning. Rec'd. 92-93 PDE Distance Learning Grant to work with Indiana University. ACCESS PENNSYLVANIA and LIN-TEL member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Hopewell Area	151	27	3	89-94	NO	No mention of distance learning in plan. Uses cable and public TV, fax and computers for distance learning. Has 2 ACCESS PENNSYLVANIA sites.
Huntingdon Area	152	11	28	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Indiana Area	153	28	29	90-95	NO	Planned to install a satellite dish but could not get funding. Member of WPSX ITV. ACCESS PA and LIN-TEL member.
Iroquois	154	5	22	88-93	YES	No mention of distance learning in plan. Participated in teleteaching 91-92. Using dish for Channel One. Uses cable for CNN, A&E, & CSpan. Also uses closed TV, fax, video & computers. Member of WQLN ITV & Learning Link. ACCESS PENNSYLVANIA member.
Jamestown Area	155	4	37	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Jeanette City	156	7	57	88-93	NO	No mention of distance learning in plan.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Jefferson-Morgan	157	1	27	87-92	YES (2)	Participates in SERC & Channel One. Uses cable for CNN. ACCESS PENNSYLVANIA member.
Jersey Shore Area	158	17	36	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Jim Thorpe Area	159	21	11	88-93	NO	No mention of distance learning in plan. Member of WLVT ITV. ACCESS PENNSYLVANIA member.
Johnsonburg Area	160	9	21	91-96	YES	Participates in Channel One and teleteaching; uses public and cable TV and fax for distance learning. Member of WPSX ITV and Learning Link. ACCESS PENNSYLVANIA member.
Juniata County	161	11	31	87-92	NO	No mention of distance learning in plan. Has 2 ACCESS PENNSYLVANIA sites.
Juniata Valley	162	11	28	91-96	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Kane Area	163	9	41	91-96	NO	No mention of distance learning in plan.
Karns City Area	164	4	8	89-94	NO	No mention of distance learning in plan.

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SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Kennett Consolidated	165	24	13	88-93	NO	Installing computer labs. Member of Learning Link. ACCESS PENNSYLVANIA and LIN-TEL member.
Keystone Central	166	10	16	88-93	NO	Discussed teaching electoral vote vs popular vote but no mention was made to use any distance learning. Member of WPSX ITV. Has 3 ACCESS PENNSYLVANIA sites.
Keystone Oaks	167	6	14	90-95	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA and LIN-TEL member.
Kiski	168	7	57	88-93	NO	No mention of distance learning in plan.
Kutztown Area	169	14	5	89-94	NO	No mention of distance learning in plan.
Lackawanna Trail	170	19	58	88-93	NO	Goal: Provide students with available options for taking courses at local colleges. ACCESS PENNSYLVANIA member.
Lake-Lehman	171	18	35	86-90	YES	No mention of distance learning. Now using Channel One; cable TV for CNN, A&E, and CSpan; also participating in teleteaching.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Lakeview	172	4	37	89-94	YES	Participates in SERC. Uses dish to record programs & for teleconferences. ACCESS PENNSYLVANIA member.
Lampeter-Strasburg	173	13	32	88-93	NO	Enhancing the use of computers. Has 3 ACCESS PENNSYLVANIA sites.
Lancaster	174	13	32	91-96	NO	Developing outcome-based learning. Has 13 ACCESS PENNSYLVANIA sites and 6 LIN-TEL sites.
Laurel	176	4	33	88-93	NO	No mention of distance learning in plan. Has 2 ACCESS PENNSYLVANIA sites.
Laurel Highlands	175	1	23	91-96	NO	Goal: New course offerings to be implemented to meet student needs in the area of high technology. ACCESS PENNSYLVANIA member.
Lebanon	177	13	34	86-91	NO	Goal: To improve district-wide use of computers & other appropriate technology. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA and LIN-TEL member.
Leechburg Area	178	28	2	86-91	NO	Improve computer instruction.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Leighton Area	179	21	11	91-96	NO	Goal: A more global approach & subject matter to increase emphasis on geography. Goal: Contract with distance learning providers to receive relevant programs via satellite. Member of WLVT ITV. ACCESS PENNSYLVANIA member.
Lewisburg Area	180	16	52	87-92	NO	Using Principles of Technology course. Member of WVIA ITV & Learning Link. Has 2 ACCESS PENNSYLVANIA sites.
Ligonier Valley	181	75	7	89-94	YES	Participates in SERC. Uses cable for CNN; also uses fax and computers for distance learning. Has 3 ACCESS PENNSYLVANIA sites.
Line Mountain	182	16	43	87-92	NO	No mention of distance learning in plan.
Littlestown Area	183	12	1	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Lower Dauphin	184	15	20	88-94	NO	More individualization. Has 2 ACCESS PENNSYLVANIA sites and 1 LIN-TEL site.
Loyalsock Township	185	17	36	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Mahanoy Area	186	29	46	89-94	YES	No mention of distance learning. Participating in Channel One. ACCESS PENNSYLVANIA member.
Manheim Central	188	13	32	91-96	NO	No mention of distance learning in plan. Has 2 ACCESS PENNSYLVANIA sites and one LIN-TEL site.
Manheim Township	189	13	32	86-91	NO	No mention of distance learning in plan. Has 2 ACCESS PENNSYLVANIA sites and one LIN-TEL site.
Marion Center	190	28	29	90-95	NO	No mention of distance learning in plan. Rec'd. 92-93 PDE Distance Learning Grant to participate with Indiana University. ACCESS PENNSYLVANIA site.
Mars Area	191	4	8	87-92	NO	No mention of distance learning in plan. Has 2 ACCESS PENNSYLVANIA sites.
McGuffey	192	1	55	88-93	YES	Participated in SERC 91-92 ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Mechanicsburg Area	187	15	20	90-95	YES	Participates in Channel One. Uses cable for CNN, A&E, & CSpan. Also uses public TV and closed TV. Uses audio graphics for mass media. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA member.
Mercer Area	193	4	37	91-96	NO	Undergoing curriculum revisions. Member of Learning Link. ACCESS PENNSYLVANIA member.
Meyersdale Area	194	84	8	89-94	YES (2)	Participates in SERC & Channel One. Was a SERC pilot site. Uses Cable TV and computers for distance learning. ACCESS PENNSYLVANIA and LIN-TEL member.
Midd-West	195	16	47	90-95	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Middletown Area	196	15	20	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Midland Borough	197	27	3	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Mifflin County	198	11	38	87-92	NO	No mention of distance learning in plan. Has 2 ACCESS PENNSYLVANIA sites.
Mifflinburg Area	199	16	52	89-94	YES (2)	Enhancing use of computers. Uses one satellite for downloading conferences; other for Channel One. Member of WVIA ITV & Learning Link. Has 2 ACCESS PENNSYLVANIA sites.
Millcreek Township	200	5	22	87-92	YES	District is outstanding in technology. Participates in SERC and was a pilot site, now uses satellite for NASA and teleconferences. Has 4 ACCESS PENNSYLVANIA sites.
Millersburg Area	201	15	20	85-90	NO	No mention of distance learning in plan.
Millville Area	202	16	17	89-94	NO	Enhance computer education. ACCESS PENNSYLVANIA site.
Milton Area	203	16	43	89-94	NO	High tech lab for vocational students. Has 2 ACCESS PENNSYLVANIA sites.
Minersville Area	204	29	46	90-95	NO	Enhance use of computers. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Mohawk Area	205	4	33	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Monaca	206	27	3	87-92	NO	No mention of distance learning in plan.
Monessen City	207	7	57	88-93	NO	Developing strategic plan for an exemplary educational program. ACCESS PENNSYLVANIA member.
Moniteau	208	4	8	88-93	NO	Use NASA database for science. Participates in audiographics with Juarez, Mexico.
Montgomery Area	209	17	36	87-92	YES	No mention of distance learning in plan. Using satellite for teleconferences. Looking at providing students with courses via satellite. ACCESS PENNSYLVANIA and LIN-TEL site.
Montoursville Area	210	17	36	89-94	YES	No mention of distance learning in plan. Uses dish for Channel One. Also uses cable TV, fax, & computers. Has 2 ACCESS PENNSYLVANIA sites.
Montrose Area	211	19	50	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Moshannon Valley	212	10	15	88-93	YES	Looking at ways to use CAI. Participates in Channel One.
Mount Carmel	213	16	43	87-92	NO	No mention of distance learning in plan. Has own TV tower which is used within the community.
Mount Pleasant Area	214	7	57	88-93	NO	Focusing on computer software. ACCESS PENNSYLVANIA and LIN-TEL member.
Mount Union	215	11	28	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Mountain View	216	19	50	89-94	NO	Forming a computer committee. ACCESS PENNSYLVANIA member.
Muhlenberg	217	14	5	87-92	NO	No mention of distance learning in plan. Using cable for CNN & CSpan. Also uses Berks ETV and computers. Member of WLVT & Learning Link. ACCESS PENNSYLVANIA member.
Muncy	218	17	36	89-94	NO	No mention of distance learning in plan.
Nazerth Area	219	20	42	90-95	NO	Restructure computer program. Member of WLVT ITV.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Neshannock Township	220	4	33	88-93	NO	No mention of distance learning in plan.
New Brighton Area	221	27	3	88-93	YES	Participated in Teleteaching 91-92. Uses dish for Channel One; also cable for Pennarama. Has 3 ACCESS PA sites.
New Castle Area	222	4	33	89-94	NO	No mention of distance learning in plan.
New Kensington-Arnold	223	7	57	87-92	YES	No mention of distance learning in plan. Participates with SERC. ACCESS PENNSYLVANIA member.
Newport	224	15	44	86-91	NO	Computer for science use.
North Clarion Co.	225	6	14	89-94	NO	No mention of distance learning in plan. Uses public TV. ACCESS PENNSYLVANIA and LIN-TEL member.
North East	226	5	22	90-95	NO	Goal: The student should forecast & prepare for future technologies. Member of WQLN ITV & Learning Link. ACCESS PENNSYLVANIA member.
North Schuylkill	227	29	46	91-96	NO	Developing outcome-based learning. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
North Star	228	8	48	88-93	NO	No mention of distance learning in plan. Has 2 ACCESS PENNSYLVANIA sites.
Northampton Area	229	20	42	86-91	YES	Develop long range plan for technology. Now using satellite for teleconferences, and working with Fairfax County. Uses cable for the Learning Channel. Member of WLVT ITV. ACCESS PENNSYLVANIA site.
Northeast Bradford	238	17	8	89-94	YES	Use satellite in place of cable since cable is not available in the area. Uses teleconferences & programs as well as educational TV ie Discovery. ACCESS PENNSYLVANIA member.
Northeastern York	230	12	59	89-94	NO	Focused on career awareness. Member of WITF ITV & Learning Link.
Northern Cambria	231	8	9	83-88	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Northern Lebanon	232	13	34	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Northern Potter	233	9	45	87-92	YES	Participating in TI-IN. Considering Teleteaching 92-93. ACCESS PA member. Rec'd. 92-93 PDE Distance Learning Grant.
Northern Tioga	234	17	51	88-93	NO	No mention of distance learning in plan.
Northwest Area	235	18	35	88-93	NO	Improve computer awareness.
Northwestern	236	5	22		NO	No plan in file. Member of WQLN ITV and Learning Link.
Norwin	237	7	57	91-96	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Octorara Area	239	24	13	88-93	YES	Purchasing laser discs and modems. Participated in SERC 91-92; using cable for CSpan; also using closed TV Member of Learning Link. Has 2 ACCESS PENNSYLVANIA sites and 1 LIN-TEL site.
Oil City Area	240	6	53	87-92	NO	Participated Teleteaching 91-92. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Oley Valley	241	14	5	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Oswayo Valley	242	9	45	88-93	NO	Considering Teleteaching 92-93. Rec'd. 92-93 PDE Distance Learning Grant. ACCESS PENNSYLVANIA member.
Otto Eldred	243	9	41	91-96	NO	Goal: The district shall encourage the use of a variety of instructional practices. ACCESS PENNSYLVANIA member.
Owen J. Roberts	244	24	13	91-96	YES	No mention of distance learning in plan Uses satellite for teleconferences. Has a goal to allow students to participate in TI-IN in the near future. Member of Learning Link. Has 2 ACCESS PA sites and one LIN-TEL site.
Oxford Area	245	24	13	87-92	NO	No mention of distance learning in plan. Member of Learning Link. ACCESS PENNSYLVANIA member.
Palmerton Area	246	21	11	89-94	NO	No mention of distance learning in plan. Member of WLVT ITV. ACCESS PA site and LIN-TEL member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Palmyra	247	13	34	87-92	NO	Develop honors courses. Member of WITF ITV & Learning Link. Has 2 ACCESS PA sites and 1 LIN-TEL site.
Panther Valley	248	21	11	91-96	NO	No mention of distance learning in plan. Member of WLVT ITV, WVIA ITV, and Learning Link. ACCESS PA member.
Pen Argyl	249	20	42	88-93	NO	Pursue new & innovative ways to deliver specialized programs to academically advanced students. Member of WLVT ITV. ACCESS PENNSYLVANIA member.
Penn Cambria	250	8	9	89-94	NO	No mention of distance learning in plan. Member of WPSX ITV. Has 2 ACCESS PA sites.
Penn Manor	251	13	32	89-94	NO	Integration of computer technology. Has 2 ACCESS PENNSYLVANIA sites. Rec'd 92-3 PDE Distance Learning Grant to work with Indiana University. Also a LIN-TEL member.
Penn-Trafford	252	7	57	86-91	NO	Focused on computers & keyboarding. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Penncrest	253	5	18	90-95	NO	No mention of distance learning in plan. Member of WQLN ITV & Learning Link. Has 3 ACCESS PENNSYLVANIA sites.
Penns Manor Area	254	28	29	91-96	NO	Developing outcome-based learning. ACCESS PENNSYLVANIA and LIN-TEL member.
Penns Valley Area	255	10	12	91-96	NO	Goal: To give every employee & student the opportunity to become literate with technology of the 90s across all areas.
Pequea Valley	256	13	32	89-94	YES	Uses satellite for NISS. Uses cable for CNN & CSpan. Also uses public TV, closed TV, fax, & computers. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA and LIN-TEL member.
Peters Township	257	1	55	87-92	YES	Using cable for CNN, Pennarama, & CSpan. Participating with SERC. Using audiographics internally. Accessing fiberoptics lines for computers. Also has a microwave dish. Has 4 ACCESS PENNSYLVANIA sites.
Philipsburg-Osceola	258	10	15	89-94	NO	No mention of distance learning in plan.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Phoenixville Area	259	24	13	89-94	YES	Goal: Provide students instruction in Telecommunications, on-line databases, and electronic mail. Participated in SERC 91-92. Member of Learning Link. Has 2 ACCESS PA sites & 1 LIN-TEL site.
Pine Grove Area	260	29	46	90-95	NO	Researching AP & Honors courses. Member of WVIA ITV & Learning Link. Has 2 ACCESS PENNSYLVANIA sites.
Pittston Area	261	18	35	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Pleasant Valley	262	20	39	90-95	NO	Exploring introduction of Latin and foreign language at elementary level. Has 2 ACCESS PA sites & 1 LIN-TEL site.
Pocono Mountain	263	20	39	87-92	YES	Participated in SERC 91-92; using cable TV, public TV, & closed TV; using fax & computers for distance learning. Has 2 ACCESS PA sites and 1 LIN-TEL site.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Port Allegany	264	9	41	90-95	YES (2)	Considering Teleteaching 92-93. Using satellites for TI-IN and Channel One. Also using cable TV. Member of WPSX ITV. Rec'd 92-93 PDE Distance Learning Grant. ACCESS PENNSYLVANIA member.
Portage	265	8	9	89-92	YES	Participating in SERC and TI-IN. Waiting for Channel One dish to be installed; uses cable for CNN & A&E. Also uses public TV and participates with WPSX. ACCESS PENNSYLVANIA member.
Pottsville Area	266	29	46	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Punxsutawney Area	267	6	30	91-96	YES	Participated in SERC pilot. Currently providing students & teachers with programs & courses off satellite. Member of WPSX ITV and Learning Link. ACCESS PENNSYLVANIA and LIN-TEL member.
Purchase Line	268	28	29	89-94	NO	No mention of distance learning in plan. Member of WPSX ITV. ACCESS PA member and LIN-TEL member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Red Lion Area	269	12	59	89-94	NO	No mention of distance learning in plan. Member of Learning Link. ACCESS PENNSYLVANIA member.
Redbank Valley	270	6	14	87-92	NO	Received ITEC monies for computers. ACCESS PENNSYLVANIA and LIN-TEL member.
Reynolds	271	4	37	89-94	NO	Goal: Develop and implement computer technology utilization plan by 1994.
Richland	272	8	9	88-93	NO	No mention of distance learning in plan. Member of WPSX ITV. Has 2 ACCESS PA sites.
Ridgway Area	273	9	21	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA and LIN-TEL member.
Ringgold	274	1	55	91-96	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Riverside Beaver	275	27	3	89-94	YES	Participating in TI-IN. Member of Learning Link. Rec'd. 92-93 PDE Distance Learning Grant. Has 2 ACCESS PA sites and 1 LIN-TEL site.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Rochester Area	276	27	3	87-92	NO	No mention of distance learning in plan.
Rockwood Area	277	8	48	91-96	NO	Developing outcome-based learning. ACCESS PENNSYLVANIA member.
St. Clair Area	278	29	46	88-93	NO	No mention of distance learning in plan.
St. Marys	279	9	21	91-96	NO	Focusing on outcome-based learning. ACCESS PENNSYLVANIA member.
Salisbury-Elk Lick	280	8	48	89-94	YES	Participated in SERC 91-92. Using cable for CNN, A&E, & CSpan. Rec'd 92-93 PDE Distance Learning Grant. LIN-TEL member.
Saucon Valley	281	20	42	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA and LIN-TEL member.
Sayre Area	282	17	7	89-94	NO	No mention of distance learning in plan.
Schuylkill Haven Area	283	29	46	89-94	NO	Add courses in Prob. & Statistics. Has 2 ACCESS PENNSYLVANIA sites.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Selinsgrove Area	284	16	47	87-92	NO	No mention of distance learning in plan. Member of WVIA ITV & Learning Link. Has 2 ACCESS PA sites & 1 LIN-TEL site.
Shade Central City	285	8	48	87-92	YES	Participating in Channel One. Using cable for A&E, & X-PRESS; also public TV, closed TV, video, fax, & computers. Member of WPSX ITV. ACCESS PA site.
Shamokin Area	286	16	43	86-91	YES	Participating in SERC; using cable for CNN, A&E, & CSpan; using closed TV. Member of WVIA ITV & Learning Link.
Shanksville-Stonycreek	287	8	48	89-94	NO	Enhancing computers for Math. Member of WPSX ITV.
Sharon City	288	4	37	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Sharpsville Area	289	4	37	90-95	NO	Investigating AP courses with local college. ACCESS PENNSYLVANIA member.
Shenandoah Valley	290	29	46	89-94	NO	Goal: Encourage students to take more academically challenging courses. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Shenango	291	4	33	89-94	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Shikellamy	292	16	43	84-89	NO	Evaluating technology currently in use as a basis for upgrading skill offerings. Member of WVIA ITV & Learning Link. ACCESS PENNSYLVANIA and LIN-TEL member.
Shippensburg Area	293	15	19	86-91	NO	Goal: To examine whether the district is utilizing all instructional options to meet the needs of students. ACCESS PENNSYLVANIA member.
Slippery Rock Area	294	4	8	89-94	NO	Enhance computer education. ACCESS PENNSYLVANIA member.
Smethport	295	9	41	90-95	YES	Considering teleteaching 92-93. Participating in TI-IN. Rec'd PDE 92-93 Distance Learning Grant. ACCESS PENNSYLVANIA member.
Solanco	298	13	32	91-96	YES	Utilizes SERC satellite programs. ACCESS PENNSYLVANIA and LIN-TEL member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Somerset Area	299	8	48	91-96	NO	Enhance computer education. ACCESS PENNSYLVANIA and LIN-TEL member.
South Butler County	300	4	8	87-92	NO	No mention of distance learning in plan.
South Eastern	301	12	59	89-94	YES	Participated in SERC 91-92. Member of Learning Link. ACCESS PA member.
South Middleton	302	15	19	88-93	NO	Install computer labs in high school. ACCESS PENNSYLVANIA member.
South Side Area	303	27	3	90-95	YES (2)	No mention of distance learning in plan. Participating with SERC & Channel One; provides fax for distance learning. Has 3 ACCESS PENNSYLVANIA sites.
South Western	304	12	59	86-91	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
So. Williamsport Area	296	17	36	91-96	NO	Developing outcome-based learning.
Southeastern Greene	305	1	27	87-92	YES	Participating in SERC. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Southern Columbia	306	16	17	89-94	YES	No mention of distance learning in plan. Was unable to use satellite for a 2-year period. Updating to C & KU band and plan to use it in the future. ACCESS PENNSYLVANIA member.
Southern Fulton	307	11	26	88-93	YES	Participated in Teleteaching 91-92; using computers in program. Used satellite infrequently due to renovations. Going to install Channel One in 92-93. ACCESS PA site.
Southern Huntingdon Cty	297	11	28	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA MEMBER.
Southern Tioga	308	17	51	89-94	YES	Participated in Teleteaching 91-92; uses dish for Channel One. Has 2 LIN-TEL sites.
Southern York County	309	12	59	86-91	NO	No mention of distance learning in plan. Member of Learning Link. ACCESS PA site.
Southmoreland	310	7	57	88-93	NO	No mention of Dis-tance Learning in plan. ACCESS PENNSYLVANIA member.

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SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Spring Cove	311	8	6	91-96	NO	No mention of distance learning in plan. Member of WPSX ITV. ACCESS PA member.
Spring Grove Area	312	12	59	83-88	NO	No mention of distance learning in plan. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA member.
State College Area	313	10	12	88-93	NO	No mention of distance learning in plan. Uses cable for CNN, Pennarama, CSpan, & X-PRESS. Uses public TV, closed TV, fax, and video for distance learning. Member of WPSX ITV & Learning Link. Has 3 ACCESS PA sites & 1 LIN-TEL site.
Steelton-Highspire	314	15	20	91-96	NO	Begin planning for outcome-based inst.
Stroudsburg	315	20	39	91-96	NO	Access to computers for students & faculty. Member of WLVT ITV. ACCESS PENNSYLVANIA member.
Sullivan County	316	17	49	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA and LIn-TEL member.
Susquehanna Community	317	19	50	88-93	NO	No mention of distance learning in plan.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Susquehanna Township	318	15	20	90-95	NO	No mention of distance learning in plan. Has 2 ACCESS PA sites & 1 LIN-TEL site.
Susquenita	319	15	44	87-92	NO	No mention of distance learning in plan.
Tamaqua	320	29	46	91-96	NO	Developing outcome-based learning; use cable for CSpan. ACCESS PA member.
Titusville Area	321	6	53	87-92	NO	Participated in Teleteaching 91-92. Member of WQLN ITV & Learning Link. ACCESS PENNSYLVANIA member.
Towanda Area	322	17	7	86-91	NO	Participated in Teleteaching 91-92. Rec'd. 92-93 PDE Distance Learning Grant. ACCESS PENNSYLVANIA member.
Tredyffrin-Easttown	323	24	13	89-94	YES	Participating in SERC; using cable TV, fax, video & computers in distance learning. Member of Learning Link. Has 3 ACCESS PA sites & 2 LIN-TEL sites.
Tri-Valley	324	29	46	87-92	NO	No mention of distance learning in plan. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Trinity Area	325	1	55	90-95	YES (2)	By 1994, fully equip the library to facilitate the use of technology. Participated in SERC 91-92; use cable for CNN; also uses closed TV, fax, video & computers for distance learning. Participates in Channel One. Has 2 ACCESS PA sites & 1 LIN-TEL site.
Troy Area	326	17	7	91-96	NO	Participated in Teleteaching 91-92. Rec'd. 92-93 PDE Distance Learning Grant. Has 2 ACCESS PENNSYLVANIA sites and 1 LIN-TEL site.
Tulpehocken Area	327	14	5	91-96	YES	No mention of distance learning in plan. Uses dish for Channel One; uses public and cable TV & fax for distance learning. ACCESS PENNSYLVANIA member.
Tunkhannock Area	328	18	58	87-92	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Turkeyfoot Valley	329	8	48	91-96	YES	Participated in SERC 91-92. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Tuscarora	330	12	25	88-93	NO	No mention of distance learning in plan. Member of WITF ITV & Learning Link. ACCESS PENNSYLVANIA member.
Twin Valley	331	14	5	88-93	NO	No mention of distance learning in plan. Member of Learning Link. ACCESS PA site.
Tyrone Area	332	8	6	91-96	NO	Goal: To increase the opportunity for students to take additional courses which will enrich their Math background. Considering AP courses. ACCESS PA site.
Union	335	6	14	91-96	NO	Developing articulated curriculum.
Union Area	333	4	33	88-93	YES (2)	Participates in SERC & Channel One. uses cable for CNN, A&E, & specials; also uses public TV, video & fax.
Union City	334	5	22	91-96	YES	Goal: Modifying courses to make the school an exciting place to learn. Uses satellite to bring in programs for students & teachers. Member of WQLN ITV & Learning Link.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Uniontown Area	336	1	23	90-95	NO	Goal: Expand the use of instructional technology across the educational program each year. Has 6 ACCESS PA sites.
Unionville-Chadds Ford	337	24	13	89-94	NO	Participated in Teleteaching 91-92. Member of Learning Link. ACCESS PA and LIN-TEL site.
United	338	28	29	91-96	NO	Developing outcome-based learning. Rec'd 92-93 PDE Distance Learning Grant to work with Indiana University. ACCESS PENNSYLVANIA member.
Upper Adams	339	12	1	90-95	YES (2)	Participates in SERC & Channel One; uses fax & computers for distance learning. ACCESS PENNSYLVANIA member.
Upper Dauphin Area	340	15	20	90-95	NO	Goal: Improve student consciousness of desirability of AP courses. ACCESS PENNSYLVANIA member.
Valley Grove	341	6	53	88-93	NO	Participated in Teleteaching 91-92. ACCESS PENNSYLVANIA member.

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SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Wallenpaupack	342	19	56	87-92	NO	No mention of distance learning in plan. Member of WVIA & Learning Link. ACCESS PENNSYLVANIA member.
Warren County	343	5	54	91-96	YES	Uses dish for Channel One; uses cable for CNN, A&E, CSpan, & Discovery; uses public TV, closed TV, fax & computers. Member of WPSX ITV & Learning Link. Has 6 ACCESS PA sites & 5 LIN-TEL sites.
Warrior Run	344	16	43	91-96	YES	Investigating alternative methods of instruction that encourage students to become life long learners. ACCESS PENNSYLVANIA member.
Warwick	345	13	32	89-94	YES	Using satellite for teleconferences & taping of programs. Has 2 ACCESS PA sites and 1 LIN-TEL site .
Washington	346	1	55	87-92	NO	Considering adding AP courses. Has 2 ACCESS PENNSYLVANIA sites.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Wattsburg Area	347	5	22	89-94	YES	Considering implementing Geography course; using Channel One; cable for CNN & CSpan; using public TV, fax, & computers for distance learning. Member of WQLN ITV & Learning Link. ACCESS PENNSYLVANIA member.
Wayne Highlands	348	19	56	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Waynesboro Area	349	12	25	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA and LIN-TEL member.
Weatherly Area	350	21	11	87-92	NO	No mention of distance learning in plan.
Wellsboro Area	351	17	51	88-93	NO	No mention of distance learning in plan.
West Chester Area	352	24	13	87-92	YES	No mention of distance learning in plan. Participating in SERC. Member of Learning Link. Has 5 ACCESS PA sites and 1 LIN-TEL site.
West Greene	353	1	27	88-93	NO	Enhance use of computers. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
West Middlesex Area	354	4	37	88-93	NO	No mention of distance learning in plan.
West Perry	355	15	44	91-96	YES	Developing outcome-based learning; uses dish for Channel One.
West Shore	356	15	19	87-92	YES	Participating in Channel One; uses cable for CNN, A&E, CSpan, & Discovery; uses public TV, closed TV, video, & computers for distance learning. Member of WITF ITV & Learning Link. Has 2 ACCESS PA sites and 2 LIN-TEL sites.
West York Area	357	12	59	91-96	NO	Goal: Send faculty to Hi-tech schools. Incorporate computers into curriculum. ACCESS PENNSYLVANIA member.
Western Beaver County	358	27	3	89-94	YES (2)	Participating in SERC & Channel One. Using cable for CNN, A&E, & Learning Channel; also public TV, closed TV, fax, & computers for distance learning. ACCESS PENNSYLVANIA member.
Western Wayne	359	19	56	87-92	NO	No mention of distance learning in plan.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Westmont Hilltop	360	8	9	87-92	NO	No mention of distance learning in plan. Member of WPSX ITV. ACCESS PA member.
Wilkes-Barre Area	361	18	35	91-96	NO	No mention of distance learning in plan.
Williams Valley	362	29	46	85-90	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Williamsburg Community	363	8	6	87-92	NO	No mention of distance learning in plan.
Williamsport Area	364	17	36	91-96	NO	No mention of distance learning in plan. Member of WPSX ITV.
Wilmington Area	365	4	33	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Wilson	367	14	5	87-92	NO	No mention of distance learning in plan.
Wilson Area	366	20	42	89-94	NO	Improve computer literacy program. Member of WLVT ITV & Learning Link. ACCESS PENNSYLVANIA member.

SCHOOL DISTRICT	CODE	IU	COUNTY	LR PLAN	SAT. DISH	COMMENTS
Windber Area	368	8	48	89-94	NO	Considering selecting students for AP Spanish & foreign lang. for 7th gr. ACCESS PENNSYLVANIA member.
Wyalusing	369	17	7	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Wyoming Area	370	18	35	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Wyoming Valley West	371	18	35	88-93	NO	No mention of distance learning in plan. ACCESS PENNSYLVANIA member.
Wyomissing Area	372	14	5	89-94	NO	Need to encourage AP & Honors courses. Member of Learning Link. Has 2 ACCESS PA sites and 1 LIN-TEL site.
York Suburban	373	12	59	88-93	NO	No mention of distance learning in plan.
Yough	374	7	57	86-91	NO	Focused on word processing. ACCESS PENNSYLVANIA member.

APPENDIX C

Rural Survey Results

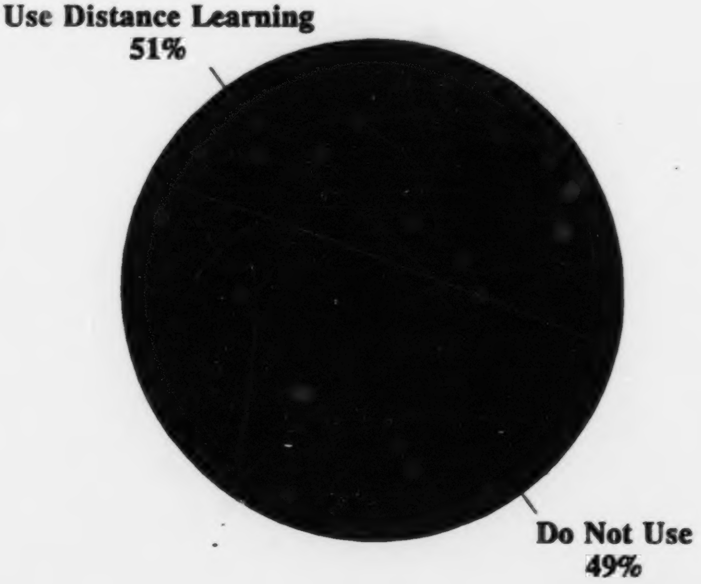
Appendix C

Interpretation of Rural Survey Responses

Survey Item #1: **"Does your school district presently use any distance learning program?"**

From the surveys sent to rural school districts, 80 districts (51%) responded that they currently use distance learning, while 78 districts (49%) said they did not. However, when talking with superintendents on the telephone, it appears that the use of broadcast television is viewed by some as distance learning while others only consider it supplemental. Therefore, the number of districts actually using some form of distance learning may be larger than Fig. 1 indicates.

Fig. 1 School Districts Using Distance Learning Programs



Survey Item #2: "What technologies are used in your district for distance learning?"

Table 1 and Fig. 2 show the data gathered by the survey and the analysis of Five-Year Plans of responding rural school districts. When reviewing supplemental data, it became obvious that many school districts did not report the fixed satellite dishes that were installed as a result of participation in Channel 1. Satellite dishes installed through the SERC program or dishes installed through other funding sources are steerable and therefore schools can receive many channels. Channel 1 satellite dishes are fixed and can only receive programs from Whittle Communications—this may have accounted for the under-representation of satellite dishes in the survey.

Table 1

TECHNOLOGIES USED (78 respondents)	DATA IN 5-YR. PLAN (Count)	SURVEY DATA		
		Number of Responses	% of Total Responses	% of Respondents
Satellite	49	57	19.8	73.1
Fax	3	40	13.9	51.3
Public TV	4	35	12.2	44.9
Microwave		2	.7	2.6
Cable TV		55	19.1	70.5
Audiographics	7	13	4.5	16.7
Closed TV	3	21	7.3	26.9
Video		14	4.9	17.9
Fiber Optics		1	.3	1.3
Computer		50	17.4	64.1

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 2 Technologies Used for Distance Learning

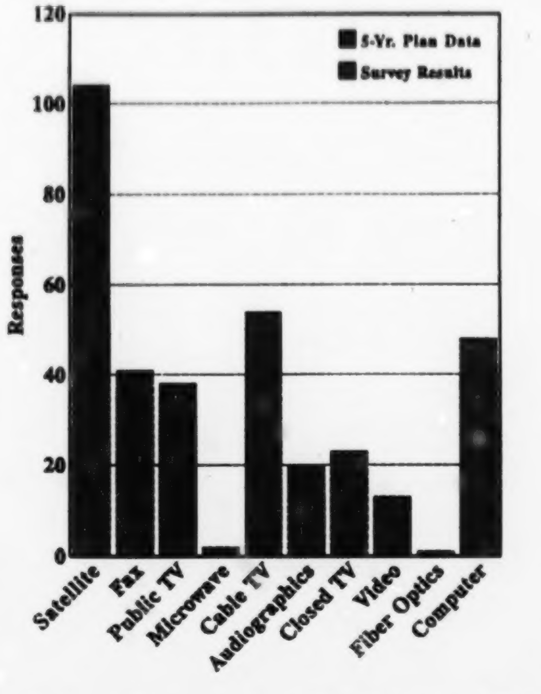
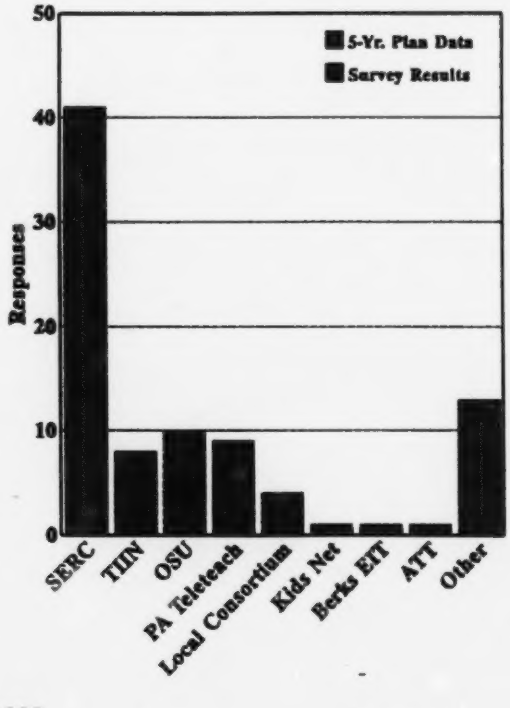


Fig. 3 Formal Distance Learning Programs Used



Survey Item #3.1: **"Indicate the formal distance learning services used by your district."**

Table 2 and Fig. 3 shows that SERC is the largest provider of formal programs in Pennsylvania. This can be attributed to the partnership formed by the Pennsylvania Department of Education and the Pennsylvania Public Television Network to become members of the SERC organization. As a result, many schools were able to install satellite dishes at a greatly reduced rate. In addition, the partnership also provided advice and counsel in matters dealing with site preparation, satellite installation, and course registration and delivery. School districts wanting to use other distance learning services had to contact providers on their own.

Table 2

FORMAL DISTANCE LEARNING PROGRAMS USED (44 respondents)	DATA IN 5-YR. PLAN (Count)	SURVEY DATA		
		Number of Responses	% of Total Responses	% of Respondents
SERC	8	33	55.8	75.0
TI-IN	3	5	8.5	11.4
OSU	2	8	13.6	18.2
PA Teleteach	6	3	5.1	6.8
Local Consortium		4	6.8	9.1
Kids Net		1	1.7	2.3
Berks EIT		1	1.7	2.3
AT&T		1	1.7	2.3
Other	10	3	5.1	6.8

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Survey Item #3.2: **"Indicate the cable program distance learning services used by your district."**

Table 3 and Fig. 4 shows CNN, C-Span, and A&E cable programs are used more frequently than any others. This could be a result of the widespread exposure these programs have through community cable access. Some rural communities, however, still do not have access to cable programs and therefore cannot participate in any cable offerings.

Table 3

CABLE PROGRAMS USED (47 respondents)	DATA IN 5-YR. PLAN (Count)	SURVEY DATA		
		Number of Responses	% of Total Responses	% of Respondents
CNN	2	41	35.7	87.2
PENNARAMA		8	7.0	17.0
A & E		22	19.1	46.8
C-Span		29	25.2	61.7
PBS		2	1.7	4.3
Assignment Discovery	4	7	6.1	14.9
Xpress Xchange	3	3	2.6	6.4
Learning Channel	1	2	1.7	4.3
Headline News		1	.9	2.1

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 4 Cable Programs Used for Distance Learning

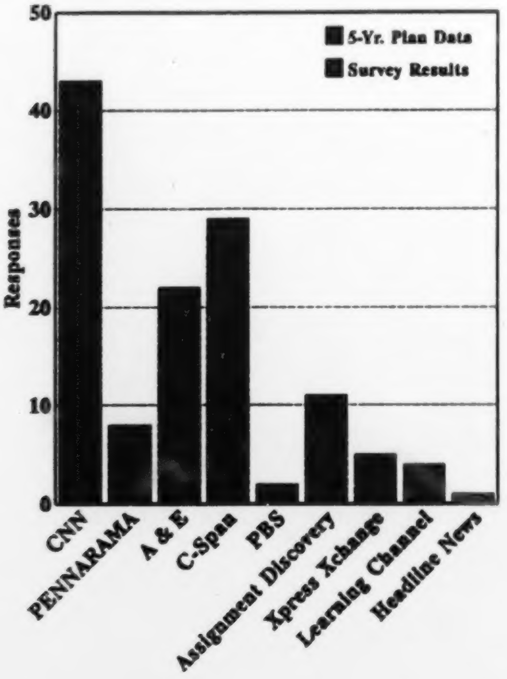
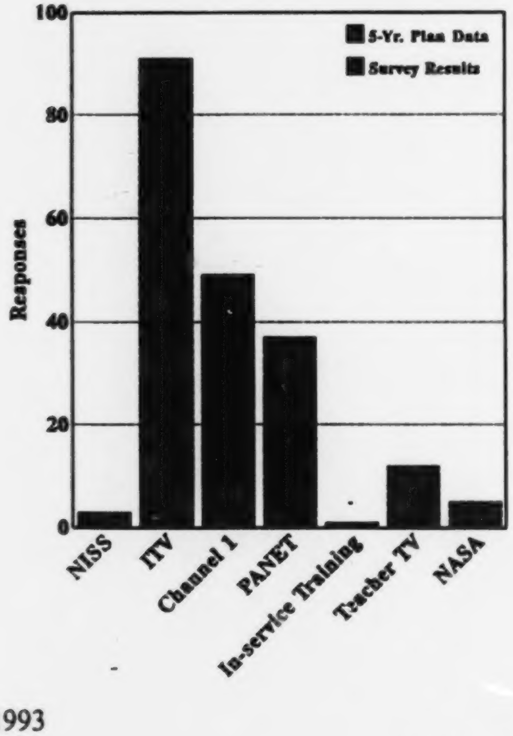


Fig. 5 Satellite Services Used for Distance Learning



Survey Item #3.3: "Indicate the satellite distance learning services used by your district."

Some confusion may have been caused by the way this question was posed, particularly with the inclusion of ITV. There may be a discrepancy between what some districts considered a service or program. Table 4 and Fig. 5 shows that of the 106 satellite dishes accounted for in the survey, 43 of them are being used for Channel 1. Responses for PANET, a Pennsylvania on-line science database, may have been inaccurate since the survey was sent before the 1992-93 registration took place. Membership in PANET appears to be constantly growing as more science educators become aware of this service.

Table 4

SATELLITE SERVICES USED (53 respondents)	DATA IN 5-YR. PLAN (Count)	SURVEY DATA		
		Number of Responses	% of Total Responses	% of Respondents
NISS		3	5.1	5.7
ITV	83	8	13.6	15.1
Channel One	6	43	72.9	81.1
PANET	36	1	1.7	1.9
In-Service Training		1	1.7	1.9
Teacher TV	10	2	3.4	3.8
NASA	4	1	1.7	1.9

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Survey Item #4: **"Is your district involved in any distance learning partnerships with outside sources?"**

Based on the survey, Table 5 and Fig. 6 show 27 districts are currently participating in one or more distance learning partnerships, mainly with universities, intermediate units, and other school districts. Only one district reported a partnership with business. It is encouraging to note that 306 rural school districts are currently participating in the resource-sharing program, ACCESS PENNSYLVANIA. In addition, 84 rural school districts are providing on-line database-searching services for students and teachers under the LIN-TEL program.

Responses to a related question, #14, on the survey indicated that 28 respondents (88%) of the rural school districts were interested in forming partnerships, while 11 respondents (8%) were not interested and 7 respondents (5%) were not sure. These data are shown in Fig. 7.

Two similar questions, #17 and #18, respectively asked whether districts were willing to share distance learning technologies with: (a) community and/or state agencies; and (b) other school districts. Most of the school districts, 136 out of 137 who responded, were willing to share with community and/or state agencies. Likewise, 138 out of 143 school districts were willing to share with other districts.

Table 5

PARTNERSHIPS FORMED (27 respondents)	DATA IN 5-YR. PLAN (Count)	SURVEY DATA		
		Number of Responses	% of Total Responses	% of Respondents
Universities		10	26.3	37.0
Intermediate Units		12	31.6	44.4
Business		1	2.6	3.7
Other School Districts		12	31.6	44.4
Teleconference University		1	2.6	3.7
ACCESS PA	306	2	5.3	7.4
LIN-TEL	84	–	–	–

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 6 Partnerships with Outside Sources

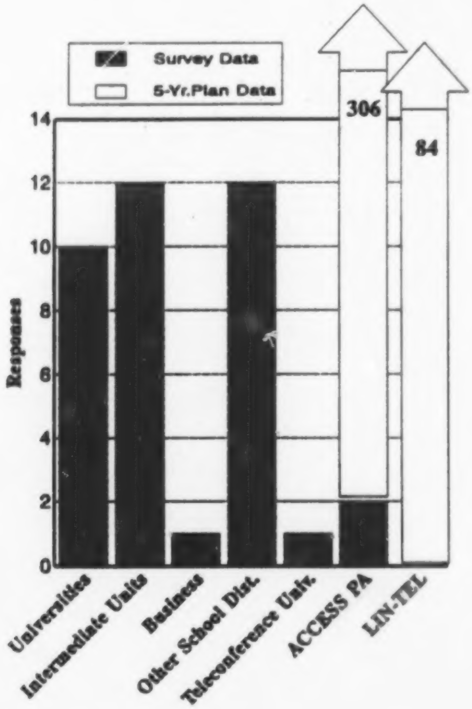
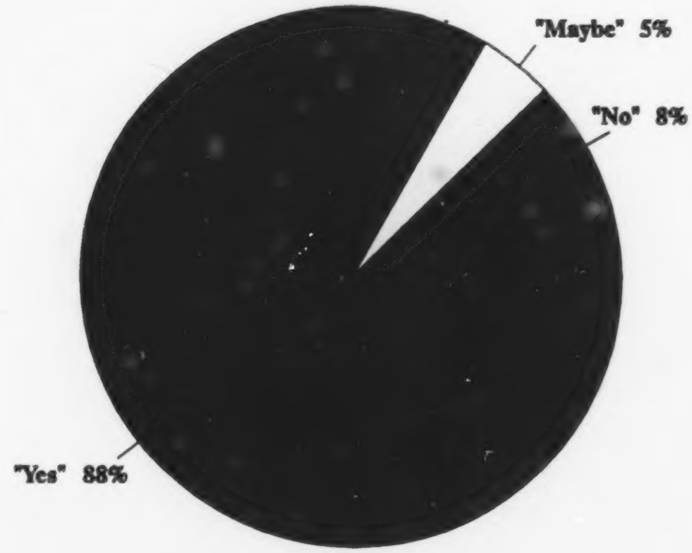


Fig. 7 Interest Expressed in Forming Partnerships



Survey Item #5: "What courses are taught in your district through distance learning?"

Table 6 shows only two districts reported using distance learning for Spanish. This may be due to the fact that many Pennsylvania schools have full-time Spanish teachers. However, the enrollment in Japanese is relatively high, perhaps due to the lack of certified Japanese teachers. In addition, there appears to be an interest in Latin and World Geography. It should be remembered that distance learning course selection can be affected by what is being offered within the regular curriculum, what is offered by formal distance learning providers, and the level of student interest.

Table 6

COURSES TAUGHT	Number of Responses	% of Total Responses	% of Respondents
HIGHER MATHEMATICS (10 respondents)			
Calculus	5	45.5	50.0
Statistics	6	54.5	60.0
FOREIGN LANGUAGES (28 respondents)			
Spanish	2	4.8	7.1
Russian	14	33.3	50.0
Japanese	23	54.8	82.1
German	3	7.1	10.7
SCIENCES (6 respondents)			
Physics	5	71.4	83.3
Chemistry	1	14.3	16.7
Biology	1	14.3	16.7
OTHERS (18 respondents)			
Latin	6	26.1	33.3
Economics	4	17.4	22.2
World Geography	6	26.1	33.3
Psychology	1	4.3	5.6
Medical Technology	2	8.7	11.1
Pascal	2	8.7	11.1
Advanced Math	2	8.7	11.1

Note: The first column of percentages is based on the number of total responses and always sums to 100. The second column of percentages is based on the number of respondents.

Survey Item #6: **"What special programs are presently offered through distance learning in your district?"**

Table 7 shows that currently there are very few distance learning programs for special needs and elementary students.

Table 7

SPECIAL PROGRAMS OFFERED	Number of Responses	% of Total Responses	% of Respondents
GIFTED COURSES (9 respondents)			
SAT Preparation	2	22.2	22.2
Languages	5	55.6	55.6
Middle Gifted	1	11.1	11.1
Seminars	1	11.1	11.1
ADVANCED PLACEMENT COURSES (9 respondents)			
English & Composition	2	14.3	22.2
Language	4	28.6	44.4
Physics	2	14.3	22.2
Calculus & Higher Mathematics	2	14.3	22.2
Economics	3	21.4	33.3
Computers	1	7.1	11.1
ELEMENTARY PROGRAMS (4 respondents)			
Languages	1	25.0	25.0
Public Television	2	50.0	50.0
Electric Field Trips	1	25.0	25.0
SPECIAL NEEDS PROGRAMS (2 respondents)			
Home Bound	1	50.0	50.0
Cable Programs	1	50.0	50.0

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Survey Item #7: **"Which courses taught through distance learning would your district be interested in starting (beyond the courses already offered)?"**

Table 8 shows the large interest in providing foreign languages by distance learning might be attributed to the requirement in the revised Chapter 5 Curriculum regulations for school districts to provide two foreign languages.

Table 8

COURSES TAUGHT	Number of Responses	% of Total Responses	% of Respondents
HIGHER MATHEMATICS (63 respondents)			
Algebra	18	19.8	28.6
Trigonometry	7	7.7	11.1
Calculus	22	24.2	34.9
Statistics	44	48.4	69.8
FOREIGN LANGUAGES (94 respondents)			
Spanish	10	5.1	10.6
Russian	57	29.2	60.6
Japanese	72	36.9	76.6
French	16	8.2	17.0
German	40	20.5	42.6
SCIENCES (51 respondents)			
Physics	13	15.1	25.5
Chemistry	10	11.6	19.6
Biology	30	34.9	58.8
Environmental Study	33	38.4	64.7

Note: The first column of percentages is based on the number of total responses and always sums to 100. The second column of percentages is based on the number of respondents.

Table 8 (Cont'd)

COURSES TAUGHT	Number of Responses	% of Total Responses	% of Respondents
OTHERS (13 respondents)			
Latin	4	28.6	30.8
Economics	3	21.4	23.1
World Geography	1	7.1	7.7
Other Languages	1	7.1	7.7
Pascal	1	7.1	7.7
Sciences	1	7.1	7.7
Genetics	1	7.1	7.7
Technology	2	14.3	15.4

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Survey Item #8: **"Which special programs would you like to see your district obtain through distance learning?"**

Table 9 and Table 10 indicate that there appears to be unmet needs for distance learning in the areas of gifted, advanced placement, elementary programs, and special needs.

Table 9

SPECIAL PROGRAMS DISTRICTS WOULD LIKE TO OBTAIN	Number of Responses	% of Total Responses	% of Respondents
GIFTED PROGRAMS (23 respondents)			
Arts	3	8.1	13.0
Sciences	4	10.8	17.4
Languages	9	24.3	39.1
Mathematics	6	16.2	26.1
College Credit	6	16.2	26.1
Elementary Gifted	3	8.1	13.0
Middle School Gifted	4	10.8	17.4
International Studies	1	2.7	4.3
Seminars	1	2.7	4.3
ADVANCED PLACEMENT CLASSES (27 respondents)			
History	7	10.8	25.9
Chemistry	6	9.2	22.2
English & Composition	6	9.2	22.2
Language	4	6.2	14.8
Physics	11	16.9	40.7
Calculus & Higher Mathematics	17	26.2	63.0
Economics	2	3.1	7.4
Biology	4	6.2	14.8
Social Sciences	3	4.6	11.1
Computers	5	7.7	18.5

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Table 10

SPECIAL PROGRAMS DISTRICTS WOULD LIKE TO OBTAIN	Number of Responses	% of Total Responses	% of Respondents
ELEMENTARY PROGRAMS (18 respondents)			
Sciences	4	16.7	22.2
Mathematics	3	12.5	16.7
Languages	12	50.0	66.7
Writing	1	4.2	5.6
Enrichment	4	16.7	22.2
SPECIAL NEEDS (13 respondents)			
Learning Disabled	2	10.5	15.4
Home Bound	9	47.4	69.2
High Risk	3	15.8	23.1
Enrichment for At Risk	1	5.3	7.7
Remedial Core Classes	2	10.5	15.4
Responsibility	1	5.3	7.7
Study Skills	1	5.3	7.7
OTHER NEEDS (5 respondents)			
Curriculum supplements	1	20.0	20.0
Community Interest	1	20.0	20.0
Shorthand	2	40.0	40.0
Government	1	20.0	20.0

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Survey Item #9: "What assistance would be needed to install, monitor, and maintain distance learning programs?"

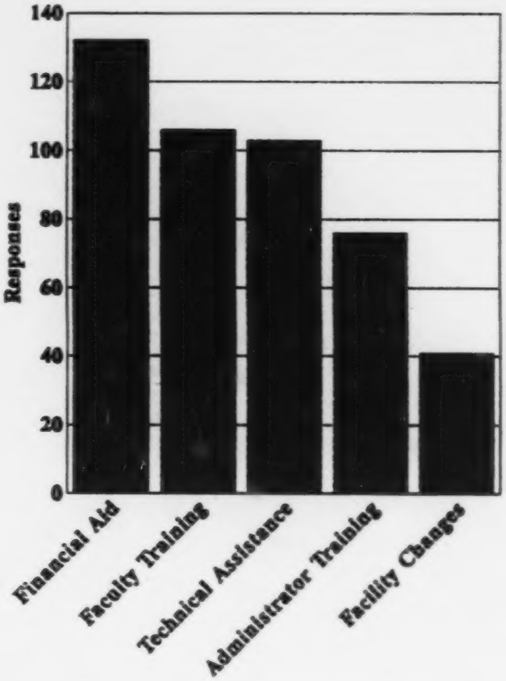
Table 11 and Fig. 8 show the greatest area of need is financial aid, but it is also obvious that school districts need assistance in all areas.

Table 11

ASSISTANCE NEEDED (145 responses)	Number of Responses	% of Total Responses	% of Respondents
Financial Aid	132	28.8	91.0
Faculty Training	106	23.1	73.1
Technical Assistance	103	22.5	71.0
Administrator Training	76	16.6	52.4
Facility Changes	41	9.0	28.3

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 8 Distance Learning Program Assistance Needed



Survey Item #10: **"What type of in-service programs would your faculty need to implement a distance learning program?"**

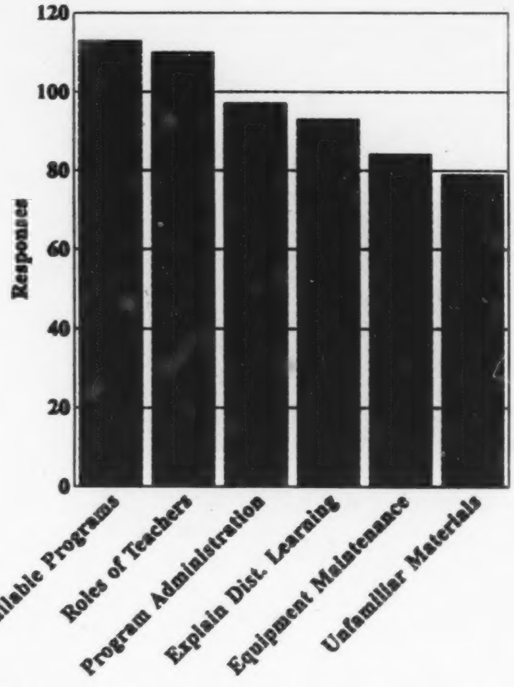
Table 12 and Fig. 9 show the responses indicate a great need for the education of faculty regarding all facets of distance learning.

Table 12

IN-SERVICE PROGRAMS NEEDED (149 responses)	Number of Responses	% of Total Responses	% of Respondents
Available Programs	113	19.6	75.8
Changing Roles of Teachers	110	19.1	73.8
Program Administration	97	16.8	65.1
Explaining Distance Learning	93	16.1	62.4
Equipment Maintenance	84	14.6	56.4
Unfamiliar Materials	79	13.7	53.0

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 9 In-Service Programs Needed



Survey Item #11: **"What faculty concerns may inhibit starting a distance learning program in your district?"**

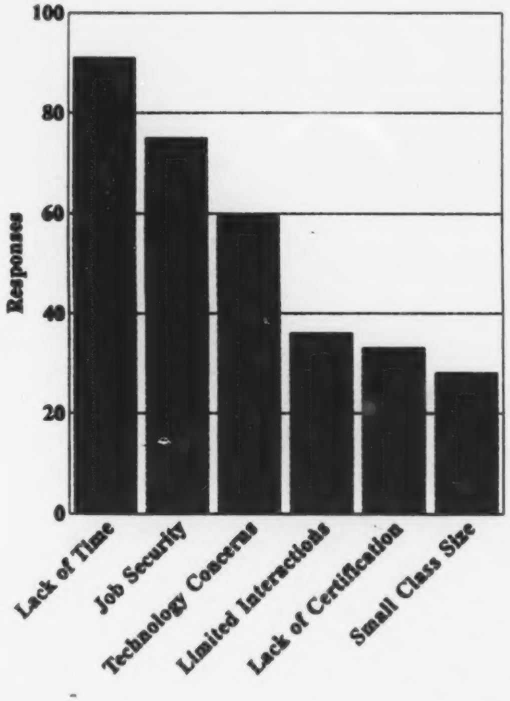
Table 13 and Fig. 10 show that administrators thought that their faculties were largely concerned with the lack of time, job security, and technology issues.

Table 13

FACULTY CONCERNS (138 responses)	Number of Responses	% of Total Responses	% of Respondents
Lack of Time	91	28.2	65.9
Job Security	75	23.2	54.3
Technology Concerns	60	18.6	43.5
Limited Interaction	36	11.1	26.1
Lack of Certification	33	10.2	23.9
Small Class Size	28	8.7	20.3

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 10 Faculty Concerns About Distance Learning Programs



Survey Item #12: "What are your concerns regarding staffing of a distance learning classroom?"

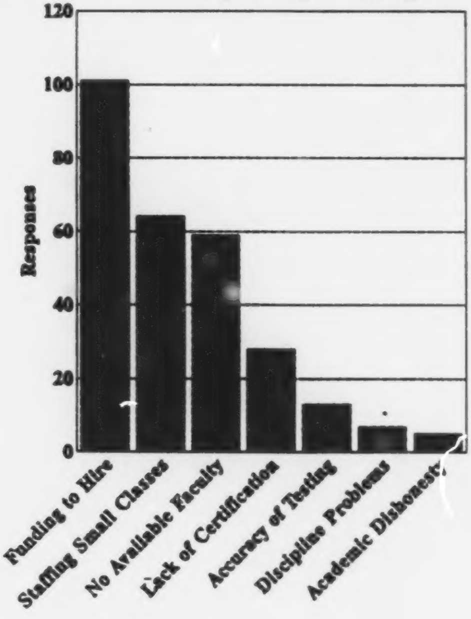
Table 14 and Fig. 11 show that funding to hire a teacher for a rural Pennsylvania distance learning classroom appears to be a major concern. This may be due in part to current Pennsylvania regulations which require the presence of a certified teacher in the distance learning classroom. The majority of other states polled as part of this study permit non-certified staff to serve as classroom facilitators (see Chart A, Section III.E.4).

Table 14

CLASSROOM STAFFING CONCERNS (133 responses)	Number of Responses	% of Total Responses	% of Respondents
Funding to Hire	101	36.5	75.9
Staffing of Small Classes	64	23.1	48.1
No Available Faculty	59	21.3	44.4
Lack of Certification	28	10.1	21.1
Accuracy of Testing	13	4.7	9.8
Discipline Problems	7	2.5	5.3
Academic Dishonesty	5	1.8	3.8

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 11 Concerns Regarding Staffing Classrooms



Survey Item #13: **"What means of communication will parents in your district need to understand the impact of distance learning?"**

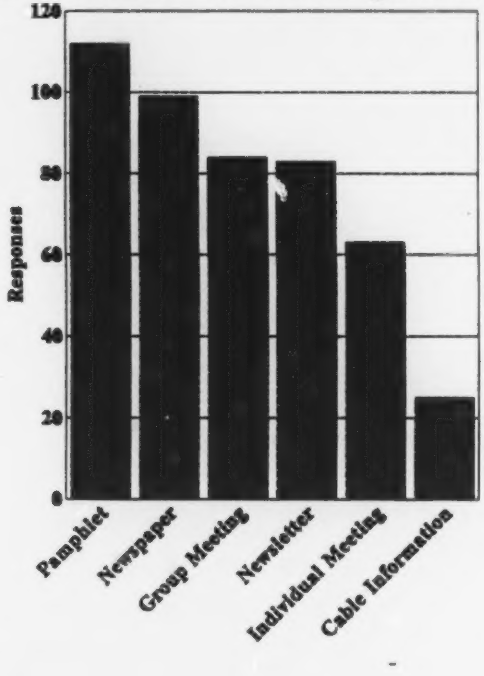
Table 15 and Fig. 12 show that only 25 school districts (17%) plan to use cable to disseminate information about distance learning to parents. Most districts indicated that they intend to use print-based materials to inform parents.

Table 15

MEANS OF COMMUNICATING WITH PARENTS (147 responses)	Number of Responses	% of Total Responses	% of Respondents
Pamphlet	112	24.0	76.2
Newspaper	99	21.2	67.3
Group Meeting	84	18.0	57.1
Newsletter	83	17.8	56.5
Individual Meeting	63	13.5	42.9
Cable Information	25	5.4	17.0

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 12 Means of Communicating With Parents



Survey Item #16: **"Has your district ever attempted to start a distance learning program then reconsidered the idea? If "Yes," why was the program discontinued?"**

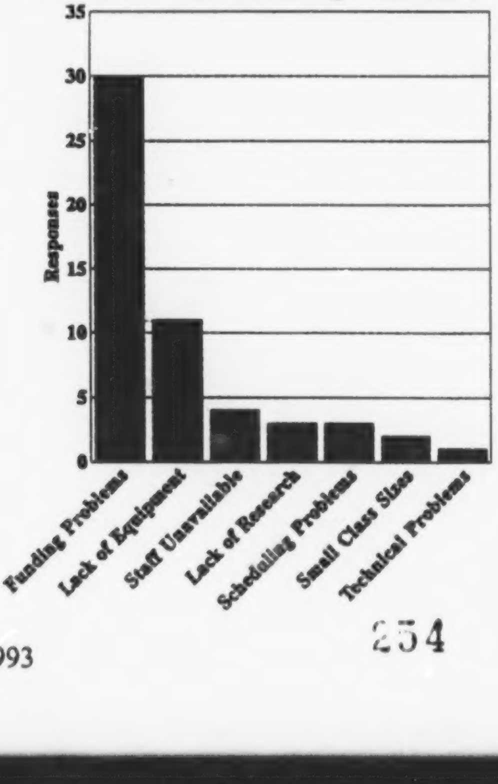
Table 17 and Fig. 13 shows 45 school districts had been involved in distance learning but discontinued the programs. The major reason cited for discontinuing distance learning programs was funding problems.

Table 16

REASONS FOR DISCONTINUATION (38 responses)	Number of Responses	% of Total Responses	% of Respondents
Funding Problems	30	55.6	78.9
Lack of Equipment	11	20.4	28.9
Staff Unavailable	4	7.4	10.5
Lack of Research	3	5.6	7.9
Scheduling Problems	3	5.6	7.9
Small Class Sizes	2	3.7	5.3
Technical Problems	1	1.9	2.6

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 13 Reasons For Discontinuing Distance Learning Programs



APPENDIX D

Urban/Suburban Survey Results

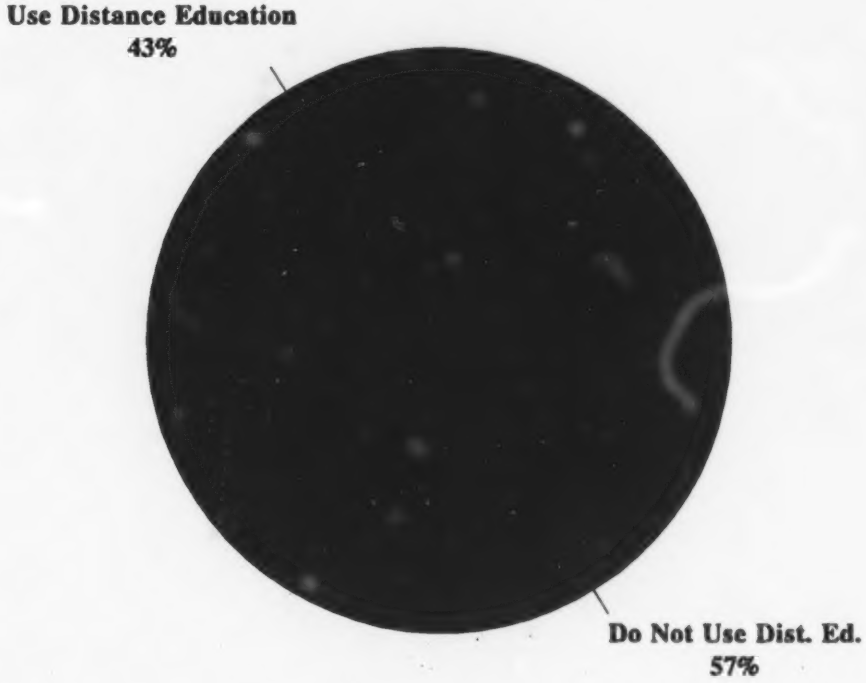
Appendix D

Interpretation of Urban/Suburban Survey Responses

Survey Item #1: "Does your school district presently use any distance learning

One hundred fifteen surveys were sent to urban/suburban school districts. Forty-seven were returned (41%). Of the 47 returned surveys, twenty (43%) indicated their district uses some form of distance learning while 27 (57%) do not (Fig. 14). In comparison, fifty-one percent (51%) of the rural school districts responding indicated that they used some form of distance learning.

Fig. 14 Urban/Suburban School Districts Using Distance Learning



Survey Item #2: **"What technologies are used in your district for distance learning?"**

It is interesting to note that the responses from the urban/suburban districts and those from rural school districts indicate that there is only a two percent difference in the use of satellites, with the urban/suburban ranking higher (see Fig. 15.1). There is a much higher percentage difference (10%) between urban/suburban and rural school districts when it comes to the use of cable with the urban/suburban once again ranking higher. This could be attributed to the fact that some rural schools do not have access to cable. All other methods of distance learning delivery, with the exception of computers, are all available in a larger percentage in the urban/suburban schools.

Table 17

TECHNOLOGIES USED	Number of Responses	% of Total Responses	% of Respondents
Cable TV	16	21.1	80.0
Satellite	15	19.7	75.0
Fax	12	15.8	60.0
Public TV	10	13.2	50.0
Computer/Modem	10	13.2	50.0
Closed Circuit TV	6	7.9	30.0
Video Broadcast	4	5.3	20.0
Fiber Optics	1	1.3	5.0
Videophone	1	1.3	5.0
Compressed Video	1	1.3	5.0

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 15 **Technologies Used for Distance Learning**

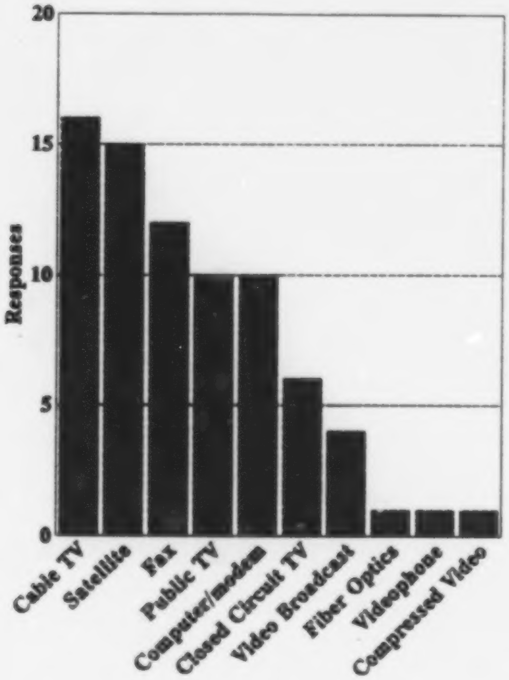
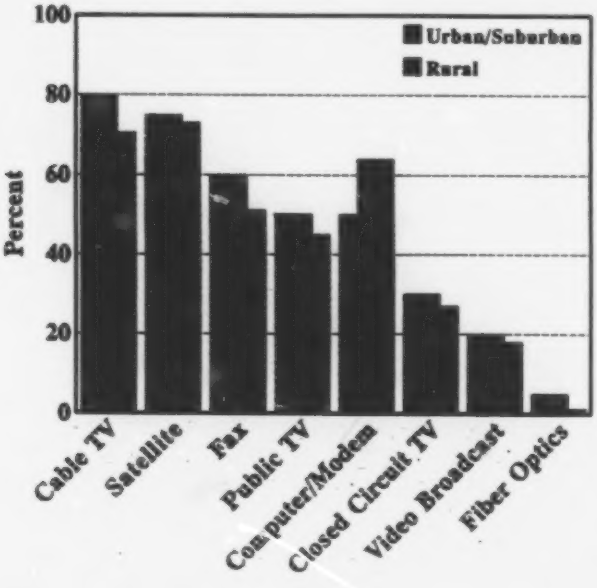


Fig. 15.1 **Comparison of Technologies Used**



Urban/suburban data not verified using 5-yr. plan data. Rural data has been verified.

Survey Item #3: "Indicate the distance learning services used by your district."

The greatest percentage difference between the two populations lies in the use of satellite programs (Table 18 and Fig. 16). Only 35% of the urban/suburban schools use Channel One, while the percentage of rural schools doing the same is 81% (Fig. 16.1). This could be attributed to the fact the Channel One comes with free equipment which might have been more appealing to rural schools.

Although fewer rural schools reported that they have access to cable, a larger percentage of them use the cable programs (with the exception of Discovery) as a form of distance learning (Table 19, Fig. 17 and 17.1).

It is interesting to note that SERC is being used by only 35% of the urban/suburban schools, while 75% of the rural schools are SERC members (Table 20, Fig. 18 and 18.1). This is strong evidence that rural school districts need the distance learning programs provided by SERC to meet the needs of their students far more than urban/suburban schools.

Table 18

SATELLITE PROGRAMS USED	Number of Responses	% of Total Responses	% of Respondents
Channel 1	7	50.0	35.0
ITV	3	21.4	15.0
NISS	2	14.3	10.0
OTHER	1	7.1	5.0
Teleconferences	1	7.1	5.0

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 16 Satellite-Programs Used for Distance Learning

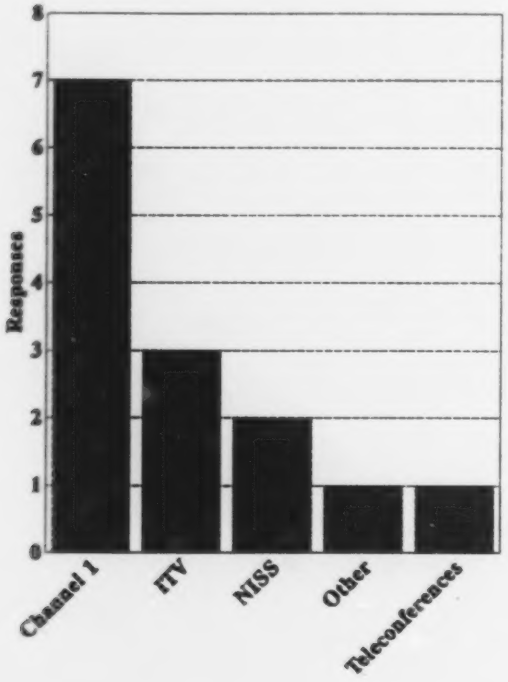
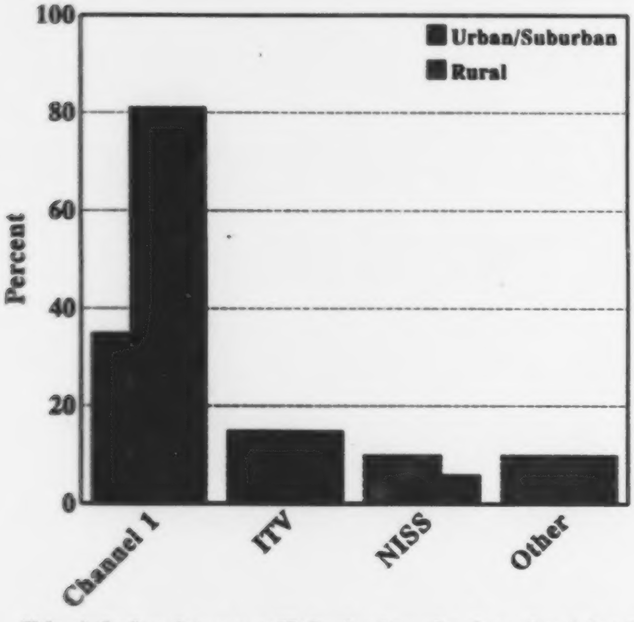


Fig. 16.1 Comparison of Satellite Programs Used



Urban/suburban data not verified using 5-yr. plan data. Rural data has been verified.

Table 19

CABLE PROGRAMS USED	Number of Responses	% of Total Responses	% of Respondents
CNN	13	30.2	65.0
Discovery	11	25.6	55.0
C-Span	9	20.9	45.0
A & E	7	16.3	35.0
PENNARAMA	3	7.0	15.0

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 17 **Cable Programs Used for Distance Learning**

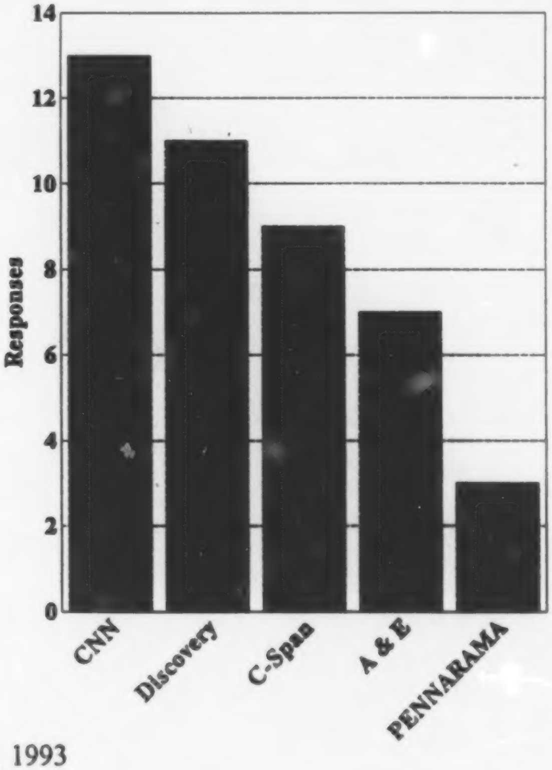
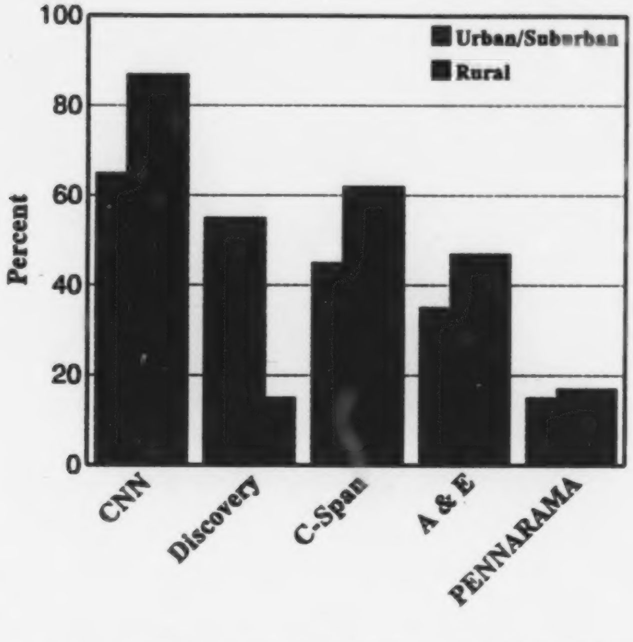
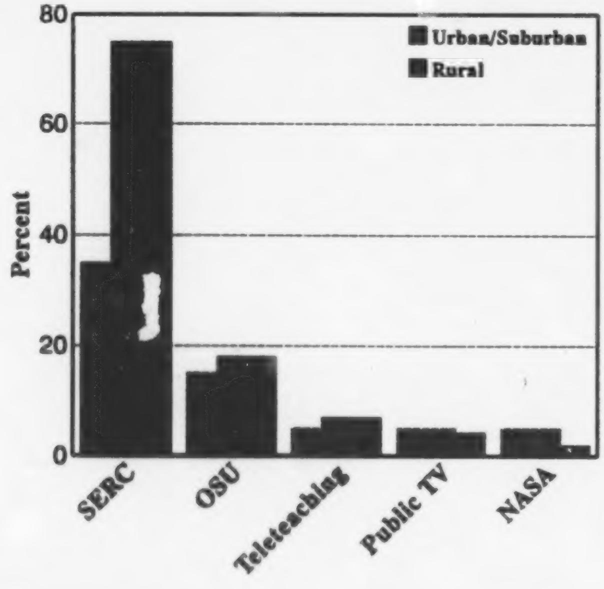


Fig. 17.1 Comparisons of Cable Programs Used



Urban/suburban data not verified using 5-yr. plan data. Rural data has been verified.

Fig. 18.1 Comparisons of Formal Programs Used



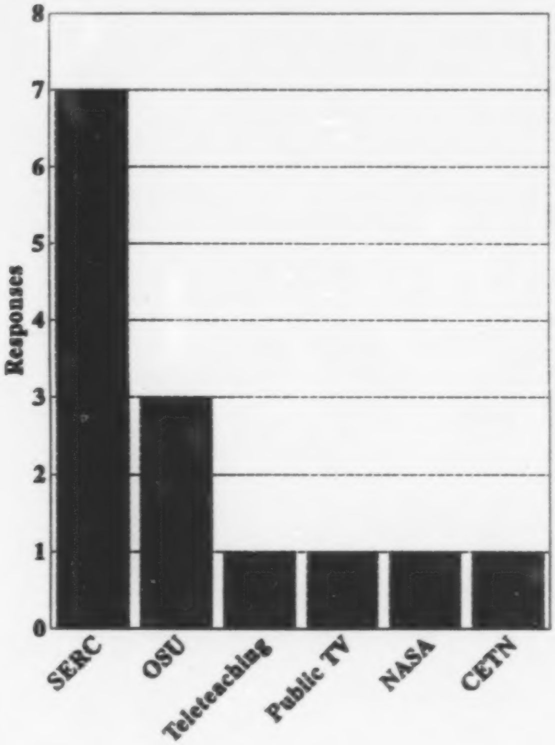
Urban/suburban data not verified using 5-yr. plan data. Rural data has been verified.

Table 20

FORMAL PROGRAMS USED	Number of Responses	% of Total Responses	% of Respondents
SERC	7	50.0	35.0
OSU	3	21.4	15.0
Teleteaching	1	7.1	5.0
Public TV	1	7.1	5.0
NASA	1	7.1	5.0
CETN	1	7.1	5.0

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 18 **Formal Programs Used for Distance Learning**



Survey Item #4: **"Is your district involved in any distance learning partnerships with outside sources?"**

A higher percentage of rural schools (73%) participate in ACCESS PENNSYLVANIA than the urban/suburban schools (50%) (see Fig. 20.1). More rural schools participate in learning partnerships with their intermediate units (44% vs. 20%) (see Fig. 6 and Fig. 20). This may be attributed to the fact that rural school districts may be relying more heavily on their intermediate units for assistance since their staffs are much more sparse.

Table 21

OUTSIDE SOURCES USED	Number of Responses	% of Total Responses	% of Respondents
ACCESS PA	10	43.5	50.0
LIN-TEL	5	21.7	25.0
Intermediate Units	4	17.4	20.0
Other Schools	2	8.7	10.0
Public TV	1	4.3	5.0
Universities	1	4.3	5.0

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 19 **District's Involved in Distance Learning Partnerships**

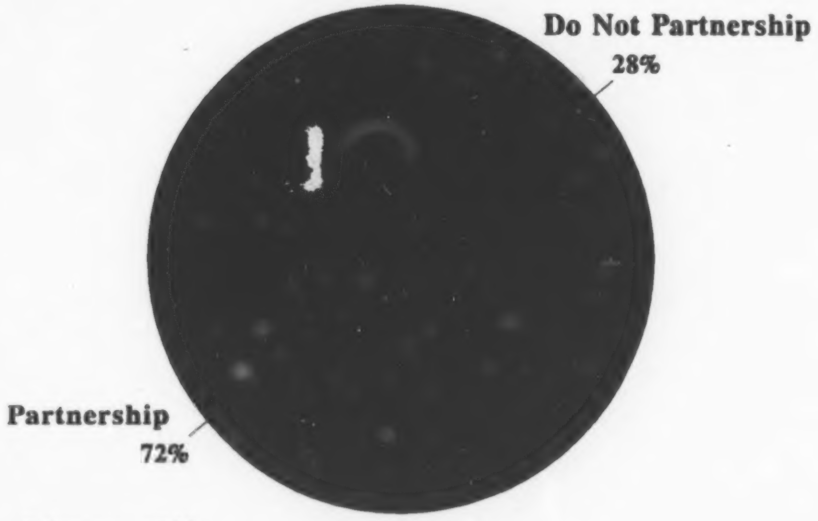


Fig. 20 Urban/Suburban Distance Learning Partnerships

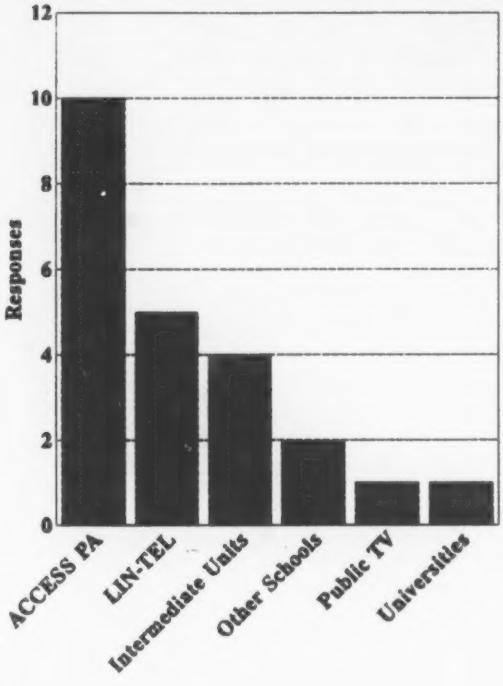
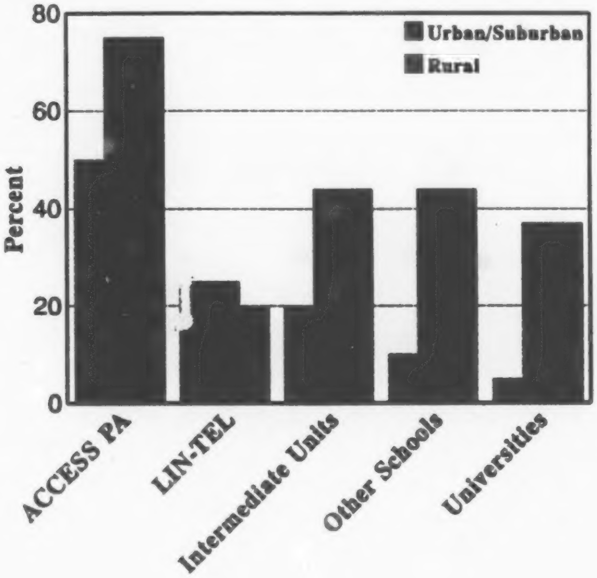


Fig. 20.1 Comparison of Distance Learning Partnerships



Urban/suburban data not verified using 5-yr. plan data. Rural data has been verified.

Survey Item #5: **"What courses are taught in your district through distance learning?"**

The urban/suburban school districts are using distance learning largely to provide calculus and additional foreign languages, particularly Japanese and Russian, to their students (see Table 22 and Fig. 21). Rural school districts are also using distance learning mainly for these areas. In addition, rural schools are providing more courses in Latin and in the sciences via distance learning than the urban/suburban schools.

Table 22

COURSES TAUGHT	Number of Responses	% of Total Responses
HIGHER MATHEMATICS (3 responses)		
Calculus	3	100.0
FOREIGN LANGUAGES (10 responses)		
Japanese	7	70.0
Russian	2	20.0
French	1	10.0
SCIENCES (1 response)		
Environmental Study	1	100.0
OTHERS (6 responses)		
Economics	2	33.3
General Science	1	16.7
Latin	1	16.7
Social Studies	1	16.7
Accuweather	1	16.7

Note: The first column of percentages is based on the total number of responses and always sums to 100. The second column of percentages is based on the number of respondents.

Fig. 21 Courses Taught Through Distance Learning

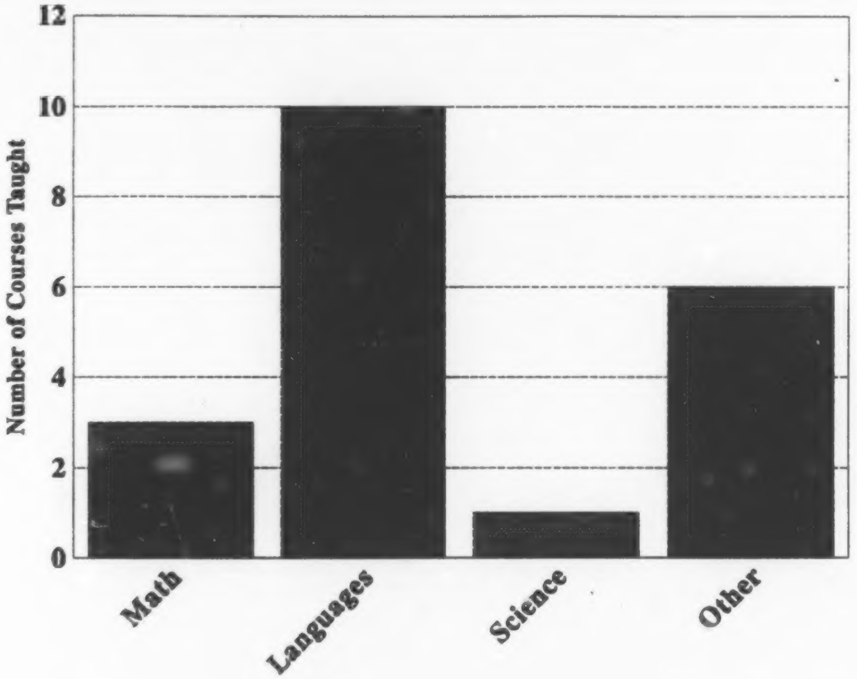
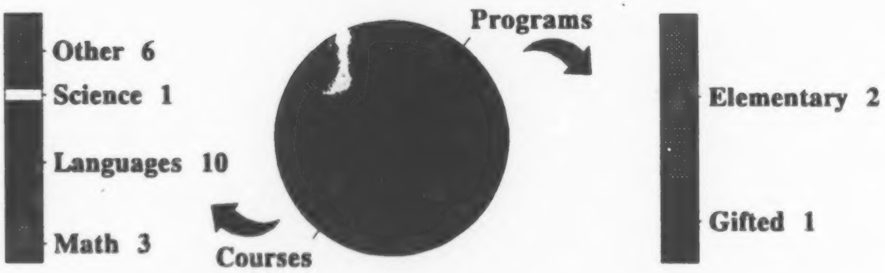


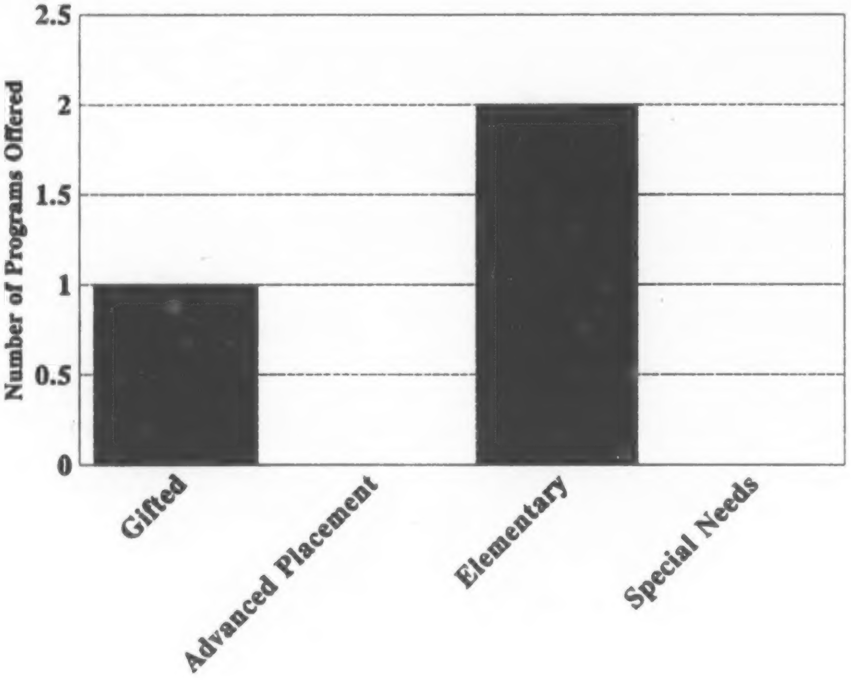
Fig. 21.1 Comparison of Courses and Special Programs Taught



Survey Item #6: **"What special programs are presently offered through distance learning in your district?"**

The urban/suburban and rural schools are using distance learning to offer elementary programs and programs for gifted students (see Fig. 22). There are, however, more rural school districts using distance learning for advanced placement courses. This may be attributed to the fact that rural schools may have smaller numbers of students needing such courses as well as an insufficient number of teachers to handle special courses.

Fig. 22 Special Programs Offered Through Distance Learning



Survey Item #7: **"Would your district be willing to share distance learning technologies and school facilities with the community and/or state agencies?"**

Seventeen (17) urban/suburban school districts out of the 18 respondents, indicated a willingness to share distance learning technologies and school facilities with the community and/or state agencies. This is an indication that many partnerships are currently going undeveloped and that steps need to be taken to help bring these agencies together.

Survey Item #8: **"Would your district be will to share distance learning technologies with other school districts?"**

Seventeen (17) urban/suburban school districts out of 18 respondents, indicated a willingness to share distance learning technologies with other school districts. While some of them may already be participating in sharing, particularly in the teleteaching project, it is an indication that much more can be accomplished in this area. While rural school districts reported that they are currently involved in partnerships; mainly with other school districts (44.4%), intermediate units (44.4%), and universities (37%), much of this may be attributed to the ACCESS PENNSYLVANIA project. Therefore, rural school districts are going to need a great deal of assistance in making the right connections to share distance learning technologies and/or teachers. The most likely agency to provide such assistance is the Pennsylvania Department of Education.

Distance Learning Needs Assessment

Mansfield University
Mansfield, PA 16933

Distance learning is the delivery of instruction from a central site to one or more remote locations through an electronic medium (e.g. satellite, computer/modem, cable, fiber optics, etc.) As part of a Distance Learning Education Grant from the Center for Rural Pennsylvania, Mansfield University wants to assess the need for distance learning programs in Pennsylvania's rural school districts.

It should take you approximately 5-10 minutes to complete the eighteen questions on this survey. Please respond with your district's present and future distance learning needs in mind.

You may choose more than one response per question where applicable.

1. Does your school district presently use any distance learning program?

[ ] Yes [ ] No **If "No," please skip to question 7.**

2. What technologies are used in your district for distance learning?

[ ] Satellite* [ ] Microwave* [ ] Closed circuit T.V.* [ ] Fiber Optics*
[ ] Fax Machine* [ ] Cable T.V.* [ ] Video Broadcast* [ ] Computer/modem
[ ] Public T.V.* [ ] Audiographics*

[ ] Other (specify)______________________________________

3. Indicate the distance learning services used by your district.

Formal Distance Learning Programs

[ ] SERC* [ ] TI-IN* [ ] Oklahoma State University* [ ] Midlands*

[ ] Other (specify)____________________________

Cable Programs

[ ] CNN Newsroom* [ ] PENNARAMA* [ ] Arts & Entertainment* [ ] C-Span*

[ ] Other (specify)____________________________

Satellite Programs

[ ] NISS* [ ] ITV* [ ] Channel One*

[ ] Other (specify)____________________________

4. Is your district involved in any distance learning partnerships with outside sources?

[ ] Yes [ ] No

If "Yes," please indicate which sources below:

[ ] Universities [ ] Area businesses [ ] Other school districts
[ ] Intermediate Units [ ] Community agencies

[ ] Other (specify)________________________

* See enclosed glossary for definitions.

5. What courses are taught in your district through distance learning?

Higher Mathematics

[ ] Advanced Algebra
[ ] Trigonometry
[ ] Calculus
[ ] Statistics

Foreign Languages

[ ] Spanish
[ ] Russian
[ ] Japanese
[ ] French
[ ] German

Sciences

[ ] Physics
[ ] Chemistry
[ ] Advanced Biology
[ ] Environmental Studies

[ ] Other courses (specify)

6. What special programs are presently offered through distance learning in your district?

[ ] Programs for gifted students (specify).

[ ] Advance placement courses (specify).

[ ] Elementary level programs (specify).

[ ] Programs/courses for special needs students (e.g. learning disabled, home bound, high-risk) (specify).

[ ] In-service training for teachers, librarians, aides, administration, and staff.

[ ] Graduate instruction for career advancement or certification purposes.

[ ] Adult basic education and GED services.

[ ] Other programs (specify)

7. Which courses taught through distance learning would your district be interested in starting (beyond the courses already offered)?

Higher Mathematics

[ ] Advanced Algebra
[ ] Trigonometry
[ ] Calculus
[ ] Statistics

Foreign Languages

[ ] Spanish
[ ] Russian
[ ] Japanese
[ ] French
[ ] German

Sciences

[ ] Physics
[ ] Chemistry
[ ] Advanced Biology
[ ] Environmental Studies

[ ] Other courses (specify)

8. Which special programs would you like to see your district obtain through distance learning?

[ ] Programs for gifted students (specify).

[ ] Advance placement courses (specify).

[ ] Elementary level courses (specify).

[ ] Programs/courses for special needs students (e.g. learning disabled, home bound, high-risk) (specify).

[ ] In-service training for teachers, librarians, aides, administration, and staff.

[ ] Graduate instruction for career advancement or certification purposes.

[ ] Adult basic education and GED services.

[ ] Other programs (specify)

APPENDIX E

Rural and Urban Survey Instruments

9. What assistance would be needed to install, monitor, and maintain distance learning programs?

[ ] Financial assistance [ ] Technical assistance [ ] Administrative training
[ ] Training for faculty [ ] Facility changes

[ ] Other (specify)____

10. What type of in-service programs would your faculty need to implement a distance learning program?

[ ] Explanation of distance learning itself.
[ ] Explanation of available programs through distance learning.
[ ] Maintaining equipment and new technology.
[ ] Administration of program (text, testing, records, etc.).
[ ] Changing role of teacher.
[ ] Working with unfamiliar subject matter.

[ ] Other (specify)____

11. What faculty concerns may inhibit starting a distance learning program in your district?

[ ] Job security concerns [ ] Concerns over technologies
[ ] Lack of time [ ] Does not utilize teacher's skills
[ ] Lack of certification [ ] Small class size and participation
[ ] Limited interaction between teacher and students

[ ] Other (specify)____

12. What are your concerns regarding staffing of a distance learning classroom?

[ ] No available faculty [ ] Lack of certification [ ] No funds to hire more staff
[ ] Accurate testing [ ] Discipline problems [ ] Academic dishonesty
[ ] Difficulty in staffing small classes

[ ] Other (specify)____

13. What means of communication will parents in your district need to understand the impact of distance learning?

[ ] Pamphlet/Information sheet [ ] Group meeting [ ] Individual meetings
[ ] Cable information channel [ ] Newspaper article [ ] Parent's newslette

[ ] Other (specify)____

14. Would your district be interested in establishing a distance learning partnership with other sources such as a business, university, or community agency?

[ ] Yes [ ] No

15. What are your funding concerns about obtaining distance learning programs?

[ ] Funds unavailable in my district [ ] Need information about funding sources
[ ] Lack of resources (people, funds, etc.) to apply

[ ] Other (specify)____

16. Has your district ever attempted to start a distance learning program then reconsidered the idea?

☐ Yes ☐ No

If "Yes," why was the program discontinued?

☐ Funding problems
☐ Inadequate Training
☐ Lack of equipment
☐ Limited parental support
☐ Staff unavailable
☐ Small class size

☐ Other (specify)____________________

17. Would your district be willing to share distance learning technologies and school facilities with the community and/or state agencies?

☐ Yes ☐ No

18. Would your district be willing to share distance learning technologies with other school districts?

☐ Yes ☐ No

School district____________________

County____________________

Position of Respondent____________________

Please add any additional comments about distance learning below.

Thank you for your input on distance learning. You may return the survey to us when you attend the meeting in your area or by mail by June 19, 1992 to the address below.

Distance Learning Project
Rural Services Institute
Doane Center
Mansfield University
Mansfield, PA 16933

Distance Learning Needs Assessment
Mansfield University
Mansfield, PA 16933

Distance learning is the delivery of instruction from a central site to one or more remote locations through an electronic medium (e.g. satellite, computer/modem, cable, fiber optics, etc.) As part of a Distance Learning Education Grant from the Center for Rural Pennsylvania, Mansfield University wants to reflect the need for distance learning programs in Pennsylvania's Urban/Suburban school districts.

It should take you approximately 5-10 minutes to complete the eight questions on this survey. Please respond with your district's present and future distance learning needs in mind.

You may choose more than one response per question where applicable.

1. Does your school district presently use any distance learning program?

[ ] Yes [ ] No If "No," please return.

2. What technologies are used in your district for distance learning?

[ ] Satellite* [ ] Microwave* [ ] Closed circuit T.V.* [ ] Fiber Optics*
[ ] Fax Machine* [ ] Cable T.V.* [ ] Video Broadcast* [ ] Computer/modem
[ ] Public T.V.* [ ] Audiographics*
[ ] Other (specify)________________________________

3. Indicate the distance learning services used by your district.

Formal Distance Learning Programs

[ ] SERC* [ ] TI-IN* [ ] Oklahoma State University*
[ ] Teleteaching [ ] Other (specify)________________________

Cable Programs

[ ] CNN Newsroom* [ ] PENNARAMA* [ ] Arts & Entertainment* [ ] C-Span*
[ ] Other (specify)________________________ [ ] Discovery

Satellite Programs

[ ] NISS* [ ] ITV* [ ] Channel One*
[ ] Other (specify)________________________

4. Is your district involved in any distance learning partnerships with outside sources?

☐ Yes ☐ No

If "Yes," please indicate which sources below:

☐ Universities

☐ Lin-Tel

☐ Access PA.

☐ Area businesses

☐ Intermediate Units

☐ Other (specify)________________________________

☐ Other school districts

☐ Community agencies

5. What courses are taught in your district through distance learning?

Higher Mathematics	Foreign Languages	Science
☐ Advanced Algebra	☐ Spanish	☐ Physics
☐ Trigonometry	☐ Russian	☐ Chemistry
☐ Calculus	☐ Japanese	☐ Advanced Biology
☐ Statistics	☐ French	☐ Environmental Studies
	☐ German	

☐ Other courses (specify)________________________________

6. What special programs are presently offered through distance learning in your district?

☐ Programs for gifted students (specify).________________________________

☐ Advance placement courses (specify).________________________________

☐ Elementary level programs (specify).________________________________

☐ Programs/courses for special needs students (e.g. learning disabled, home bound, high-risk) (specify).________________________________

☐ In-service training for teachers, librarians, aides, administration, and staff.

☐ Graduate instruction for career advancement or certification purposes.

☐ Adult basic education and GED services.

☐ Other programs(specify)________________________________

____

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* See enclosed glossary for definitions.

7. Would your district be willing to share distance learning technologies and school facilities with the community and/or state agencies?

☐ Yes ☐ No

8. Would your district be willing to share distance learning technologies with other school districts?

☐ Yes ☐ No

School district____

County____

Position of Respondent____

Please add any additional comments about distance learning below.

Thank you for your input on distance learning. Please return the survey to us in the enclosed envelope by November 05, 1992 to the address below.

Distance Learning Project
Rural Services Institute
209 Doane Center
Mansfield University
Mansfield, PA 16933

APPENDIX F

Results of Examination of Chapters 3, 5, 6, and 49

Appendix F

Results of the Examination of Chapters 3, 5, 6 and 49

In the main body of the report a summary of the results of the examination of Chapters 3, 5, 6 and 49 was presented. What follows here is a detailed report, article by article, of those sections which would either enhance or inhibit the use of distance learning in rural school districts. Included in this detailed examination were Chapter 3 (School Profiles), Chapter 5 (Curriculum Regulations), Chapter 6 (Vocational Education), Chapter 49 (Teacher Certification), and the September, 1992 draft of the proposed Chapter 49 revisions.

Suggestions are provided for possible changes in these regulations, as well as implications that educators should consider when addressing the regulations as they now stand.

Section A: Chapter 3

School Profiles (Chapter adopted March 12, 1992: Section 3.21 revised May 14, 1992)

The Pennsylvania System of School Assessment (PSSA) is a state evaluation procedure including the collection of relevant data through school self-reports and student assessments, as well as the interpretation and reporting of these data. The PSSA is designed to provide schools and school districts with relevant data to enable school personnel and other citizens to assess the schools' educational performance in order to initiate the improvement of programs.

§ 3.21 PSSA program administration.

- Nothing under this section inhibits the integration of distance learning into the teaching/learning process.

§ 3.21 (a) This section requires school districts to submit a district assessment plan to the Department as a component of its strategic plan.

- **IMPLICATION:** Schools must not forget to include the strategies for assessment that will impact those students taking distance learning courses (See § 5.231 under Chapter 5).

§ 3.21 (b) This section requires districts to provide all data required for the PSSA reports.

- **IMPLICATION:** The data gathered from those students participating in distance learning must also be included in the PSSA.

NOTE: See Appendix G for a copy of Chapter 3 Regulations.

Section B: Chapter 5

Curriculum (Chapter adopted March 12, 1992; Section 5.4, 5.201, 5.211-5.213, 5.217, 5.219, 5.231-5.232, and 5.252 revised May 14, 1992)

The purpose of this chapter is to establish State policy regarding the expectations of schools, student learning outcomes, the importance of schools focusing on the instruction of students in challenging learning outcomes, and the importance of time in the education of students (See § 5.2, Chapter 5 Regulations in Appendix G).

§ 5.4 (b) This section allows schools the greatest possible flexibility in curriculum.

- **SUGGESTION:** Schools should be encouraged by the Department of Education to examine the potential of distance learning for enhancing flexibility in curriculum.

§ 5.4 (d) This section requires schools to adopt policies to assure that parents have the necessary information about curriculum and instructional materials to make informed decisions about the choices available to their children.

- **IMPLICATION:** Schools must make a concerted effort to educate parents about distance learning.
- **SUGGESTION:** Information about distance learning could be disseminated by brochures, discussion groups, the distribution of video programs, and public broadcasting. Schools should also arrange demonstrations and open-house opportunities so parents may see distance learning programs in operation. Parents must also become aware of the variety of distance learning courses which are available, the costs involved, and the impact such exposure could have on their children's educational and career options.

§ 5.201 The common core goals identified under this section all support participation in distance learning.

§ 5.203 (c) Strategic plans: This section requires the strategic plan be based on internal and external needs analysis.

- **IMPLICATION:** Districts should conduct a separate analysis to determine the level of need for distance learning in their schools. See Appendix O for an excellent example of such an analysis, developed by Charlene Scheib, Schuylkill County Intermediate Unit 29.

§ 5.203 (c) (3) This section provides for the addition of student learner outcomes to those provided.

- **IMPLICATION:** Schools may or may not find it necessary to add student learner outcomes as a result of distance learning. This will depend upon the uniqueness of the content being offered by the distance learning program.

§ 5.203 (c) (4) This section requires schools to have planned courses to achieve student learning outcomes.

- **IMPLICATION:** Schools may find it necessary to provide a planned course for their distance learning programs. Therefore, distance learning providers should be made aware of the impact that this requirement will have on schools using their programs.

§ 5.203 (c) (5) This section relates to Chapter 3, § 3.21. Assessment must be done to determine the degree to which the student learning outcomes are achieved by students. In addition, the assessment should describe how information from the assessment shall be used to assist students who have not demonstrated mastery of the outcomes.

- **IMPLICATION:** Schools must be certain that when distance learning is incorporated into the curriculum that the provider can submit a list of learning outcomes, as well as the assurance that students will be measured for mastery of the stated outcomes.
- **IMPLICATION:** Schools need to develop appropriate methods to help students who are having difficulty mastering the subject content which is part of a distance learning course.

§ 5.203 (c) (6) This section does not inhibit the use of distance learning for professional development.

§ 5.203 (d) This section focuses on providing for active participation by both internal and external representatives.

- **SUGGESTION:** Teachers involved in distance learning should be made part of this team.

§ 5.203 (g) This section deals with the review of the strategic plans by the Department of Education.

- **IMPLICATION:** In order to properly evaluate strategic plans that will include the use of distance learning, the Department of Education must be certain the staff assigned to this task is fully aware of the components of distance learning and that they understand its unique characteristics.

§ 5.211 Elementary education; § 5.212 Middle level education and § 5.213 High school education.

- Nothing in these sections inhibit the use of distance learning. In fact, schools are allowed great flexibility in meeting the educational needs of their students.

§ 5.215 Languages and § 5.216 ESOL

- **SUGGESTION:** Schools should be encouraged to examine the options distance learning provides in the delivery of languages. And, distance learning providers should be encouraged to deliver more courses that address the very specific needs for languages and ESOL courses, particularly on the elementary level.

§ 5.218 Vocational-technical education, § 5.219 Special education, and § 5.220 HIV/AIDS.

- These sections can all be addressed in various ways by the use of distance learning and none of the regulations inhibit its use.

§ 5.222 (c) Options for achieving student learning outcomes: This section focuses on independent study.

- **SUGGESTION:** School districts should be encouraged to consider using distance learning programs to meet the needs of students for independent study.

§ 5.222 (e) Higher education courses: This section identifies ways in which students can be involved in achieving student learning outcomes in higher education courses.

- **SUGGESTION:** Schools, institutions of higher education, business, and industry should be encouraged to develop partnerships to deliver distance education courses to students.
- **SUGGESTION:** Higher education institutions should be allowed the opportunity to submit proposals for state funding to provide distance education courses for the schools in Pennsylvania.

§ 5.223 Grade structure: Chapter 5 does not require educational programs to be organized in traditional grades according to students' chronological ages or academic achievement levels.

- **IMPLICATION:** This regulation encourages schools to be more innovative and creative in their instructional approaches which may encourage the application of more distance learning opportunities.

§ 5.231 State assessment system: Nothing in this section inhibits the implementation of distance learning in the schools.

- Refer to comments made under § 3.21 (a) and § 3.21 (b) under Chapter 3.

§ 5.253 (e) Implementation schedule.

- Refer to § 5.203 (c) (3) and § 5.203 (c) (4).

NOTE: See Appendix G for a copy of Chapter 5 Regulations.

Section C: Chapter 6

Vocational-Technical Education (Chapter adopted March 12, 1992; Section 6.23 revised May 14, 1992)

This chapter applies to school districts and AVTSs offering secondary or adult vocational-technical education programs.

§ 6.21 Local advisory committee, § 6.22 Administrative committee, and § 6.23 Occupational advisory committee all provide regulations for the formation and function of these committees.

- **IMPLICATION:** All members of these committees need to be educated regarding the distance learning opportunities that are available for vocational-technical secondary and adult education students.
- **SUGGESTION:** Programs and courses should be shared between and among other vocational-technical agencies and/or higher education institutions.

§ 6.52 Satellite vocational-technical education. A satellite vocational-technical education program may be operated by an AVTS board in conformity with a memorandum of understanding adopted with the participating school district's board of school directors.

- **SUGGESTION:** Vocational-technical schools should be encouraged to expand course offerings beyond the walls of their schools.

All other regulations listed up to and including § 6.91 do not inhibit the use of distance learning in any manner.

NOTE: See Appendix G for a copy of Chapter 6 Regulations

Section D: Chapter 49 (Current Regulations)

Regulations of the State Board of Education of Pennsylvania; Certification of professional Personnel (Approved July 14, 1972; amended July 13, 1973, March 15, 1974, November 21, 1975, March 12, 1976, September 16, 1977, January 13, 1978, March 10, 1978, and July 10, 1980, September 10, 1981, September 13, 1984 - effective June 1, 1987, September 10, 1987 - effective December 26, 1987)

This chapter provides regulations for teacher certification.

§ 49.11 (b) This section indicates that teachers shall not perform professional duties in the schools of the Commonwealth in any area for which they have not been properly certificated.

- **IMPLICATION:** Under regulation § 49.15, certificated teachers are permitted to be with distance learning students who are taking courses in subject areas other than those for which the teachers have been certificated.
- **SUGGESTION:** When Chapter 49 is revised, consideration should be given to allowing non-certified school staff to monitor the distance learning classrooms when small numbers of students are involved. Rural schools have identified this regulation as one of the most inhibiting factors they face when trying to implement distance learning into their curriculum.

§ 49.13 (b) (1) Provisions in advisory services to college and school personnel in matters pertaining to teacher education and certification.

- **IMPLICATION:** The Department should require colleges to provide appropriate courses and training that will allow students who are preparing to become teachers to develop the necessary pedagogical skills to implement distance learning programs effectively.

- **SUGGESTION:** The Department should encourage colleges to provide courses for in-service credit and professional development for teachers and administrators via distance learning. These institutions should also be encouraged to develop more flexible policies to allow educators to obtain necessary course work via distance learning - thereby providing another way educators can obtain the credits needed for permanent certification and/or degrees.

§ 49.15 Approval of experimental programs. This section allows schools to use distance learning as an experimental program as long as all requirements are met.

- **SUGGESTION:** Consideration should be given to creating a separate section for distance learning within these regulations so that the methodology will not be perceived as "experimental." This section should provide all the guidelines necessary so educators can implement distance learning programs which adhere to the standards used to judge regular classroom courses.

§ 49.16 Approval of induction plans: This section deals with the induction of new teachers.

- **IMPLICATION:** Schools involved in distance learning should be certain that teacher induction programs include information about, and exposure to, distance learning programs.

§ 49.17 Continuing professional development. This section provides all the regulations for the professional development of teachers.

- **SUGGESTION:** Schools should be encouraged to use distance learning as a delivery method for professional development courses and to develop partnerships with other schools to share professional expertise.

§ 49.18 (c) Testing: This section provides the regulations for the testing of teachers by the Secretary of Education.

- **IMPLICATION:** The test should include questions to determine the teacher's level of knowledge about the effective use of distance learning technologies to deliver instruction to students.

§ 49.52 Development of types/categories of certificates and development of their respective standards.

- **SUGGESTION:** No new certificate should be issued for distance learning. The pedagogical skills and competencies necessary to understand and implement distance learning should be made part of the educational curriculum for all teachers and administrators.

No other Sections in this Chapter inhibit teachers implementing distance learning courses or programs.

NOTE: See Appendix G for a copy of Chapter 49 Regulations.

Section E: Proposed Revised Chapter 49 Regulations

The Professional Standards and Practices Commission has been working on revising Chapter 49, Certification of Professional Personnel. However, since the adoption of student outcomes under Chapter 5 (Curriculum Regulations) has been put off until January, 1993, it is doubtful that any further progress will be made on the revision of Chapter 49 until the issue of outcome-based learning has been resolved. For the purposes of this study, a review of the September 10, 1992 draft was made.

Chapter 49: Certification of Professional Personnel (Draft Six, September 10, 1992)

Introduction:

The introduction defines the knowledge and skills that all educators must possess. While the language used refers to "develop pedagogical skills" and "adapt" content, the use of technology in the teaching/learning process is not mentioned.

■ **SUGGESTION:** Language should be added to recognize the importance of teachers learning how to use various technologies, as well as how to adapt content for students with diverse needs and varying abilities. While "technology" can be read into other sections, a stronger case needs to be made here for educational technology, which includes distance learning.

Page 6: Instructional Certificates

This section deals with the requirements and scope necessary for receiving instructional certificates and moves into endorsements.

■ **IMPLICATION:** While nothing in this section would inhibit distance learning, there is no mention of technology and its place in education. Under "Supporting Statements" on page 12, a great deal of attention is paid to pedagogy. However, somewhere in this section there should be a statement regarding the pedagogy necessary to use technology efficiently and effectively.

Page 17: Administrative Certificates

This section defines the programs, the assessment process, and supportin statements for principals and superintendents.

■ **IMPLICATION:** Nothing in this section inhibits the use of distance learning. However, the programs recommended for these certificates do not include the use of technology. Under the category of "Management Skills", there should be two additional requirements: (1) Educational Technology and, (2) School Library Media.

The first course would provide administrators with an overall background of technology and how it should be managed. The second course is necessary since many distance learning programs are housed in school library media centers, and school librarians are often charged with the duties and responsibilities that come with using satellite and cable delivery of educational programs. Therefore, administrators should be required to understand how the functions of the school library will be impacted by placing distance learning programs within the library facility.

Page 24: Vocational Education

The various certificates for vocational education are defined in this section.

- **IMPLICATION:** While vocational teachers are familiar with technology as it applies to their own certification area, they need to also understand the pedagogy necessary to use distance learning programs appropriately within their area.

Page 30: Components of Teacher Education Programs

Component 1 is as follows: "Teacher education programs must be rooted in current knowledge of human learning and effective teaching". Within this component, the following statement appears, "Teacher education programs must be informed by recent and contemporary educational research and professional practices".

- **SUGGESTION:** This statement should be strengthened to include the use of educational technologies when appropriate.

NOTE: **See Appendix G for a copy of the September 16, 1992 draft of the revised Regulations.**

APPENDIX G

Chapters 3, 5, 6, and 49 Regulations

Sister M. Lawrence Antoun
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COMMONWEALTH OF PENNSYLVANIA
STATE BOARD OF EDUCATION
•
First Floor, 333 Market Street
Harrisburg, Pennsylvania 17126-0333

July 23, 1992

Dear Superintendents, AVTS Directors,
IU Executive Directors, and Others
Interested in Chapters 3, 5, and 6:

The revisions of Chapters 3, 5, and 6 which the State Board approved May 14 were published as final regulations in the July 11 issue of the Pennsylvania Bulletin. For ease of reference, you will find the revised versions of Chapters 3, 5, and 6, in their entirety, attached to this letter.

At the end of this packet is a copy of the proposed student learning outcomes, as they were published in the Pennsylvania Bulletin on May 2 (they are dated May 2 at the bottom of each page). These proposed outcomes have been the focus of a series of public hearings, and the Board is now reviewing the hearing testimony and suggestions by the House and Senate Education Committees and the Independent Regulatory Review Commission (IRRC). Based upon these recommendations, the State Board is expected to make further revisions in the outcomes and then adopt them at its meeting September 9-10.

Thank you for your continuing interest.

Sincerely,

Robert E. Feir
Executive Director

cc: State Board Members
Secretary Carroll
Commissioner Bard

REGULATIONS
OF THE
STATE BOARD OF EDUCATION OF PENNSYLVANIA

CHAPTER 3
SCHOOL PROFILES

(Chapter adopted March 12, 1992; Section 3.21 revised May 14, 1992)

GENERAL PROVISIONS

Section 3.1. Statutory authority.
3.2. Compliance schedule.
3.3. Definitions.
3.4. General purpose.
3.5. (Reserved).
3.6. (Reserved).
3.7. Scope.
3.8. (Reserved).
3.9. (Reserved).
3.10. (Reserved).
3.11. Guidelines.
3.12. Reports.
3.13 Disputes, exceptions and waivers.

PSSA

Section 3.21 PSSA program administration.
3.22 PSSA statewide assessments.

GENERAL PROVISIONS

§ 3.1. Statutory authority.

The statutory authority for this chapter is found at section 290.1 of the Public School Code of 1949 (24 P.S. § 2-290.1) and sections 2601-B -- 2606-B of the Public School Code of 1949 (24 P.S. §§ 26-2601-B -- 26-2606-B).

§ 3.2. Compliance schedule.

(a) The provisions of this chapter relating to the TELLS testing program shall be effective for the 1984-1985 school term through the 1990-1991 school term and shall be superseded beginning in the 1991-1992 school term by the provisions of §§ 5.231-5.233 (relating to assessment).

(b) The Testing for Essential Learning and Literacy Skills Program (TELLS) testing program shall be given for the first time in the 1984-1985 school term in accordance with a schedule to be developed by the Secretary and shall continue on an annual basis through the 1990-1991 school term.

(c) The provisions of this chapter relating to the PSSA become effective during the 1991-1992 school term.

§ 3.3. Definitions.

The following words and terms when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

District assessment plan - The provisions relating to school district assessment included in the strategic plan of a school district under § 5.203(c)(5) (relating to strategic plans).

PSSA - The Pennsylvania System of School Assessment under this chapter, which is a State evaluation procedure including the collection of relevant data through school self-reports and student assessments and the interpretation and reporting of these data.

Performance assessment - A measurement of performance which includes the actual production of the type of work being measured, such as an essay or composition to measure writing ability.

Statewide assessment devices - Measurements of performance designed to evaluate school programs rather than individual student achievement under § 5.231 (relating to State assessment system) and this chapter.

Strategic plan - The plan required of school districts under § 5.203 (relating to strategic plans).

§ 3.4. General purpose.

The PSSA is designed to provide schools and school districts with relevant data to enable school personnel and other citizens to assess the schools' educational performance in order to initiate the improvement of programs.

§§ 3.5 - 3.6. (Reserved).

§ 3.7. Scope.

All public schools and school districts shall participate in the PSSA.

§§ 3.8 - 3.10. (Reserved).

§ 3.11. Guidelines.

The Secretary will establish guidelines related to the administration of the PSSA. The guidelines shall require participating schools and school districts to comply with the Department's established plan for the administration of the PSSA.

§ 3.12. Reports.

The Secretary will report annually to the Board information and pertinent data relating to the PSSA.

§ 3.13. Disputes, exceptions and waivers.

The Secretary will resolve disputes arising from this chapter and will have the authority to grant waivers and exceptions to this chapter, in consultation with the Board.

PSSA

§ 3.21 PSSA program administration.

(a) Each school district shall submit to the Department for approval a district assessment plan as a component of its strategic plan under § 5.203 (relating to strategic plans).

(b) Schools and school districts participating in PSSA shall provide all data required for the PSSA reports as prescribed by the Secretary, including data from the district assessment plan under subsection (a), which shall not include student names, identification numbers or individually identifiable information. The data shall be provided when the Secretary requires it.

(c) In developing school profiles under the PSSA, the Secretary will include the following information, in addition to other data the Secretary deems appropriate:

(1) Results of State assessments under § 5.231 (relating to State assessment system), which shall not include student names, identification numbers or individually identifiable information.

(2) Results of school district assessments under § 5.232 (relating to school district assessment), which shall not include student names, identification numbers or individually identifiable information.

(3) Class size.

(4) Information about the instructional program.

(5) Percentages of students who graduate and who drop out and the status of graduates the year after they leave high school.

(6) Student attendance.

(7) Teacher attendance.

(8) Information about fiscal support of the school.

(d) In compiling school profiles under this chapter, the Department will provide school districts and AVTSs interpretive information to assist in using the profiles for strategic planning under § 5.203.

(e) The Secretary will prescribe procedures for reporting PSSA assessment data to schools and communities.

§ 3.22. PSSA statewide assessments

(a) Statewide assessment devices shall be developed to comply with § 5.231 (relating to State assessment system).

(b) The Secretary will have the authority to develop tests or other assessment devices or to contract for the development of one or more portions of the assessment devices and for related services necessary for the conduct of the assessment program.

REGULATIONS
OF THE
STATE BOARD OF EDUCATION OF PENNSYLVANIA

CHAPTER 5
CURRICULUM

(Chapter adopted March 12, 1992; Sections 5.4, 5.201, 5.211-5.213, 5.217, 5.219, 5.231-5.232, and 5.252 revised May 14, 1992)

GENERAL PROVISIONS

Section 5.1 Statutory authority.
5.2 Purpose.
5.3 Definitions.
5.4 General policies.
5.5-5.10a. (Reserved).

[COURSE CREDIT]

Section 5.11-5.18. (Reserved).
5.21-5.25. (Reserved).
5.31-5.33. (Reserved).
5.41-5.50. (Reserved).
5.61-5.63. (Reserved).
5.71-5.77. (Reserved).
5.81-5.83. (Reserved).
5.91-5.93. (Reserved).
5.101-5.102. (Reserved).
5.111-5.114. (Reserved).
5.151-5.153. (Reserved).

GOALS AND PLANNING

Section 5.201. Goals of Quality Education.
5.202. Student learning outcomes.
5.203. Strategic plans.

CURRICULUM AND INSTRUCTION

Section 5.211. Elementary education: primary and intermediate levels.
5.212. Middle level education.
5.213. High school education.
5.214. High school graduation requirements.
5.215. Languages.
5.216. ESOL.
5.217. Physical education and athletics.
5.218. Vocational-technical education.
5.219. Special education.
5.220. HIV/AIDS.

SCHEDULING AND LEARNING OPTIONS

Section 5.221. Scheduling.
5.222. Options for achieving student learning outcomes.
5.223. Grade structure.

ASSESSMENT

Section 5.231. State assessment system.
5.232. School district assessment.

PROVISIONS RELATING TO OTHER THAN PUBLIC SCHOOLS

Section 5.241. Certification by principal of nonpublic nonlicensed school.
5.242. Credentials other than the high school diploma.
5.243. Correspondence schools.
5.244. Students in special situations.

ENFORCEMENT AND IMPLEMENTATION

Section 5.251. Allegations of deficiencies.
5.252. Exceptions.
5.253. Implementation schedule.

GENERAL PROVISIONS

§ 5.1. Statutory authority.

The statutory authority for this chapter is the Public School Code of 1949 (24 P.S. §§ 1-101 -- 27-2702).

§ 5.2. Purpose.

The purpose of this chapter is to establish the following as State policy:

(1) The Board's high expectations for all schools and all students and the need for a greater degree of local autonomy for the schools to meet those expectations.

(2) Clearly stated student learning outcomes and an authentic, varied system of assessment of those outcomes.

(3) The importance of schools focusing on their primary responsibility, which is the instruction of students in ways that achieve challenging learning outcomes.

(4) The recognition of the critical importance of time in the education of the Commonwealth's students. Some students will achieve more quickly than others and some will achieve in different ways than others, although all are capable of high levels of achievement. Schools shall have flexibility to meet the diverse needs of their diverse learners. The flexibility granted by this chapter shall be used by schools and school districts to assist all students to achieve at high levels and not to adopt only minimal educational programs.

§ 5.3. Definitions.

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise:

AVTS - An area vocational-technical school.

Curriculum - A series of planned courses that are coordinated and articulated with one another and implemented in a manner designed to result in the achievement by all students of specific knowledge, skills, attitudes and behaviors.

ESOL - English to speakers of other languages.

Goals of Quality Education - The goals set forth in § 5.201 (relating to Goals of Quality Education).

Instruction - The delivery of academic and vocational content to students by teachers in order to achieve the Goals of Quality Education under § 5.201, the student learning outcomes under § 5.202 (relating to student learning outcomes) and additional student learning outcomes determined in school entity strategic plans under § 5.203 (relating to strategic plans).

Intermediate unit - A regional educational service agency that provides educational services to participating school districts as part of the public school system of the Commonwealth.

Planned course - Instruction offered by a school entity based upon a written plan which consists of at least the following elements:

(i) Learning outcomes of the course to be achieved by all students.

(ii) Content (including materials and activities) and estimated instructional time to be devoted to achieving the learning outcomes. Planned courses of varying lengths of time may be taught.

(iii) The relationship of the learning outcomes of the course to those specified under § 5.202 and to those determined in the school entity's strategic plan under § 5.203, as well as the relationship between the learning outcomes of the course and those of other planned courses of the school entity.

(iv) Procedures for assessment of the learning outcomes.

School Code - The Public School Code of 1949 (24 P.S. §§ 1-101 -- 27-2702).

School entity - A school district, intermediate unit or AVTS.

School organization - The organization of a school district's programs into kindergarten, primary, intermediate level, middle level and high school programs, including programs operated at AVTSs.

Vocational-technical education - Programs under public supervision and control which provide an organized process of learning experiences designed to develop integrated academic and occupational skills, knowledge, attitudes, work habits and leadership ability for entry into and advancement within various levels of employment in occupational areas of agriculture, business, marketing and distribution, health, home economics and trade and industry and for participation in postsecondary education and training. Apprenticeship and tech-prep programs, as defined in § 6.1 (relating to definitions), may be used by school entities to deliver vocational-technical education to secondary school students.

§ 5.4. General policies.

(a) It is the policy of the Board that the curriculum be based upon the Goals of Quality Education under § 5.201 (relating to Goals of Quality Education) and be designed to achieve the student learning outcomes under § 5.202 (relating to student learning outcomes) and additional student learning outcomes designated in school entity strategic plans under § 5.203 (relating to strategic plans).

(b) It is the policy of the Board that local school entities have the greatest possible flexibility in curriculum planning that is consistent with providing quality education and in compliance with the School Code, including requirements for courses to be taught (24 P.S. §§ 15-1501 and 16-1605), subjects to be taught in the English language (24 P.S. § 15-1511), courses adapted to the age, development and needs of the pupils (24 P.S. § 15-1512), minimum school year of 180 days and minimum of 900 hours of instruction at the elementary level and 990 hours of instruction at the secondary level (24 P.S. §§ 15-1501 and 15-1504), employment of sufficient numbers of qualified professional employes (24 P.S. § 11-1106), and superintendents to enforce the curriculum requirements of state law (24 P.S. § 10-1005), and this part.

(c) It is the policy of the Board that educational programs shall be provided without discrimination on the basis of race, sex, color, religion, disability, sexual orientation or National origin.

(d) School districts shall adopt policies to assure that parents have the following:

  (1) Access to information about the curriculum, including expected student learning outcomes, instructional materials and assessment techniques.

  (2) A process for the review of instructional materials.

  (3) The right to have their children excused from specific instruction which conflicts with their religious beliefs, upon receipt by the school district of a written request from the parents.

  (4) The right to have their children excused from State assessments under § 5.231 (relating to State assessment system) upon receipt by the school district of a written request from the parents.

§§ 5.5. - 5.10a. **(Reserved).**

[COURSE CREDIT]

§§ 5.11. - 5.18. **(Reserved).**

§§ 5.21. - 5.25. **(Reserved).**

§§ 5.31. - 5.33. **(Reserved).**

§§ 5.41. - 5.51. **(Reserved).**

§§ 5.61. - 5.63. **(Reserved).**

§§ 5.71. - 5.77. **(Reserved).**

SS 5.81. - 5.83. (Reserved).

SS 5.91. - 5.93. (Reserved).

SS 5.101. - 5.102. (Reserved).

SS 5.111. - 5.114. (Reserved).

SS 5.151. - 5.153. (Reserved).

GOALS AND PLANNING

§ 5.201. Goals of Quality Education.

(a) Quality education prepares students to assume responsible adult roles as citizens, family members, workers and lifelong learners, by attending to their intellectual and developmental needs.

(b) Instruction in quality schools is central to quality education, but quality education cannot be fully realized without involvement of the family and community.

(c) The quality school impresses upon each student and parent the need to continue learning throughout life and provides each student with consistent opportunities to develop the following common core goals of learning. Student learning outcomes under § 5.202 (relating to student learning outcomes) shall not be developed for the goals in this subsection. The goals in this subsection shall not be used as a basis for State assessment under § 5.231 (relating to State assessment system).

(1) Self worth. Each student shall be assisted to fully develop capabilities, talents, self understanding and a feeling of self worth and shall be acknowledged for effort and achievement.

(2) Information and thinking skills. Each student shall develop the skills necessary to locate and manage information, solve problems and make decisions, including the processes of analysis, synthesis, creativity and evaluation.

(3) Learning independently and collaboratively. Each student shall be motivated to become an independent life-long learner and shall have planned opportunities to collaborate with others in developing knowledge, skills and new ideas.

(4) Adaptability to change. Each student shall be helped to grow and develop in a world in which change is normal and constant.

(5) Ethical judgment. Each student shall learn the importance of making ethical judgments in society with the quality school providing experience in the ways in which adults and children interact with each other for the common good.

(d) The quality school provides instruction throughout the curriculum so that each student may achieve the following goals:

(1) Communications. Each student shall become proficient in reading, composition, listening, speech, understanding, interpreting, analyzing and synthesizing information.

(2) Mathematics. Each student shall become proficient in the use of varied mathematical processes and applications to solve challenging problems and to create new ways of understanding information.

(3) Science and technology. Each student shall become proficient in applying the processes of analysis, synthesis and evaluation to the solution of challenging scientific problems and in the application and understanding of technology in society.

(4) Environment and ecology. Each student shall understand the environment and the student's ecological relationship with it in order to develop attitudes and behaviors necessary for maintaining the quality of life in a healthy and balanced environment.

(5) Citizenship. Each student shall understand local, State and United States history, geography, systems of government and economics and their relationship to the history, geography, systems of government and economics of other countries in the world and shall acquire and have opportunities to practice, in the school and in the community, the skills and attitudes necessary for active participation in civic life.

(6) Appreciating and understanding others. Each student shall gain knowledge of various cultures in order to foster an appreciation of the dignity, worth, contributions and equal rights of all people.

(7) Arts and humanities. Each student shall understand and appreciate the breadth of human accomplishment through the arts and humanities and shall have opportunities to practice creativity of thought and action and to demonstrate talent in the arts.

(8) Career education and work. Each student shall explore varied career options and develop behaviors, skills and attitudes needed to be a productive, contributing member of society and the understanding that lifelong learning is necessary to maintain those behaviors, skills and attitudes.

(9) Wellness and fitness. Each student shall acquire and use the knowledge, skills and habits necessary to promote individual, family and community health and wellness.

(10) Personal, family and community living. Each student shall acquire and use the knowledge, skills and attitudes needed for successful personal, family and community living.

§ 5.202. Student learning outcomes.

[Editor's Note: Prior to the implementation of this Chapter, the State Board will incorporate student learning outcomes.]

§ 5.203. Strategic plans.

(a) Every school district shall develop and submit a strategic plan to the Department for approval once every 6 years and a mid-point revision of the plan once every 3 years according to an implementation schedule developed by the Department under § 5.253(b) (relating to implementation schedule). A school district plan shall incorporate appropriate components of the plan submitted under subsection (b) by an AVTS in which the district participates.

(b) Every AVTS, in conjunction with and with the approval of its participating school districts, shall develop and submit a strategic plan to the Department for approval once every 6 years and a mid-point revision of the plan once every 3 years according to an implementation schedule developed by the Department under § 5.253(b).

(c) The strategic plan shall be based upon an internal and external needs analysis, leading to the specification of priorities for action and action plans. The requirement in subsections (a) and (b) to submit plans every 6 years and revisions every 3 years does not limit a school district's or AVTS's ability to conduct a continuous strategic planning process. The plan shall include the following components in addition to others the school district or AVTS determines to include:

(1) A mission statement.

(2) A listing of the school district's or AVTS's educational goals, which shall be consistent with those under § 5.201 (relating to Goals of Quality Education) and which may include additional goals.

(3) A listing of student learning outcomes, which shall be consistent with those under § 5.202 (relating to student learning outcomes) and which may include additional student learning outcomes reflecting the needs of the students enrolled in the school, school district or AVTS. The strategic plan shall indicate outcomes students shall achieve in order to progress from the primary to the intermediate level, intermediate level to middle level and middle level to high school program.

(4) he planned courses to be offered and the instructional practices to e used in order to achieve the mission, goals and student learning outcomes under paragraphs (1)-(3) and the high school graduation requirements under § 5.214(c) (relating to high school graduation requirements). The strategic plan shall include documentation that the planned courses are designed to achieve the goals and student learning outcomes under paragraphs (2)-(3) and are at least as rigorous as those taught at the time of the strategic plan's development. A separate planned course need not be taken for every goal or learning outcome. Multiple goals and learning outcomes may be integrated into a single planned course, and a goal or learning outcome may be achieved through instruction in multiple planned courses. The initial strategic plan developed under this section

shall include provisions for the development and revision of planned courses during the period covered by the plan in order to implement this chapter.

(5) An assessment plan designed to determine the degree to which the student learning outcomes under paragraph (3) are achieved by the students. The assessment plan shall incorporate the State assessments under § 5.231 (relating to state assessment system) and local assessments under § 5.232 (relating to school district assessment) and shall describe how information from the assessments shall be used to assist students who have not demonstrated mastery of the outcomes and how information from the assessments shall be made public.

(6) The professional development plan under section 1205.1 of the School Code (24 P.S. § 12-1205.1) and § 49.17 (relating to continuing professional development) and the induction plan under § 49.16 (relating to approval of induction plans). These plans shall describe the relationship of the school district's or AVTS's continuing professional development and induction programs to the achievement of the mission, goals and student learning outcomes under paragraphs (1)-(3). The initial strategic plan developed under this section shall include provisions for professional development activities to prepare the professional staff to implement the strategic plan.

(7) A description of the school district or AVTS organization and its relationship to the achievement of the mission, goals and student learning outcomes under paragraphs (1)-(3). School districts may develop strategic plans for individual schools in order to facilitate site-based management of the educational program.

(8) A description of the professional personnel, school library, classroom and other resources the school district or AVTS plans to devote to the achievement of the mission, goals and student learning outcomes.

(9) A brief description of the process used to develop the strategic plan, including a list of persons involved in its development.

(d) In developing its strategic plan, a school district or AVTS shall provide for active participation by school directors, teachers, school administrators, other school personnel, parents, students, business and other community representatives. Teacher representatives shall be chosen by the teachers, and administrative representatives shall be chosen by the administrative personnel, and school director representatives shall be chosen by the board of school directors, of the school district or AVTS.

(e) The strategic plan and revisions of it shall be submitted to the Department for approval only after it is recommended by the school district superintendent or AVTS superintendent of record and is approved by the school district or AVTS board of directors. If the board of directors alters the proposed strategic plan developed under subsection (d), it shall consult with the committee which developed it in order to reach the greatest possible consensus prior to its submission and shall include any minority report which is developed.

(f) The strategic plan shall be made available for public inspection in the school district or AVTS offices for at least 30 days prior to its approval by the board of school directors. If a district does not develop site-based plans, the committee developing the plan under subsection (d) shall seek input and suggestions from parents and staff of all schools.

(g) The Secretary will designate teams of teachers, administrators and Department personnel to review and evaluate strategic plans submitted to the Department under this section and to recommend approval or revision to the Commissioner for Elementary and Secondary Education.

(h) If, following the review under subsection (g), the Commissioner determines that the plan is not reasonably designed to result in students achieving the learning outcomes under subsection (c)(3), the Commissioner will suggest revisions in the plan for the district's or AVTS's consideration. If the district or AVTS does not revise the plan to the Commissioner's satisfaction or provide additional evidence to the Commissioner's satisfaction that the plan will achieve the outcomes, the Commissioner may disapprove the plan. The Commissioner's disapproval may be appealed to the Secretary under 1 Pa. Code § 35.20 (relating to appeals from actions of the staff). A school district or AVTS which has not submitted an approved strategic plan under this section may be found by the Secretary to be in violation of section 2552 of the School Code (24 P.S. § 25-2552).

(i) An approved strategic plan shall remain in effect until it is superseded by an approved revision or a new strategic plan developed under this section.

CURRICULUM AND INSTRUCTION

§ 5.211. Elementary education: primary and intermediate levels.

(a) The primary program shall ordinarily be completed by children who are approximately 8 years of age. School districts shall provide opportunities for individualized rates of learning and social and emotional development that reflect differing rates of development and learning styles of young children.

(b) Curriculum and instruction in the primary program shall focus on introducing young children to formal education, developing an awareness of the self in relation to others and the environment, and developing skills of communication, thinking and learning.

(c) The intermediate level program shall ordinarily be completed by children who are approximately 11 years of age.

(d) Curriculum and instruction in the intermediate level program shall continue the development of communication, thinking and learning skills and shall begin to focus on learning specific subject matter content.

(e) Planned courses that provide instruction in the following areas shall be taught to every student every year in the primary program. These planned courses may be taught as separate planned courses or may be integrated into other appropriate planned courses:

  (1) Language arts, integrating reading, composition, spelling, listening, speech, literature and grammar, and information management, including library, skills.

(2) Mathematics, including problem-solving and computation skills.

(3) Science and environmental education, involving active learning experiences for students.

(4) Social studies.

(5) Wellness and fitness, which incorporates physical education, aerobic fitness, regular physical activity and health, including instruction on prevention of alcohol, chemical and tobacco abuse.

(6) The arts, including active learning experiences in art, music, dance and theater.

(f) Planned courses that provide instruction in the following areas shall be taught to every student every year in the intermediate level program. These planned courses may be taught as separate courses or may be integrated into other appropriate planned courses:

(1) Language arts, integrating reading, composition, spelling, listening, speech, literature and grammar.

(2) Mathematics, including problem-solving and computation skills.

(3) Science, including if appropriate instruction about agriculture and agricultural science.

(4) Social studies.

(5) Environmental education.

(6) The arts, including art, music, dance and theater.

(7) Understanding and use of library and other information sources.

(8) Wellness and fitness, which incorporates physical education, aerobic fitness, regular physical activity and health, including instruction on prevention of alcohol, chemical and tobacco abuse.

(g) Planned courses that provide instruction in the following areas shall be taught to every student at least once by the end of elementary school, except that safety education under paragraph (5) shall be taught annually in the elementary school. These planned courses may be taught as separate courses or may be integrated into other appropriate planned courses:

(1) History of the United States.

(2) History of Pennsylvania.

(3) Geography.

(4) Civics.

(5) Safety education, including, when appropriate, instruction regarding school bus safety.

(6) Prevention of human immunodeficiency virus (HIV) infection/acquired immunodeficiency syndrome (AIDS) under § 5.220 (relating to HIV/AIDS).

(h) This section does not preclude the teaching of other planned courses designed to achieve a school district's mission, goals and student learning outcomes.

(i) School districts shall determine the most appropriate way to operate their primary and intermediate level elementary programs to achieve the purposes under subsections (b) and (d) and the mission, goals and student learning outcomes in their strategic plans under § 5.203 (relating to strategic plans).

§ 5.212. Middle level education.

(a) The middle level program ordinarily serves children who are approximately 11-14 years of age. School districts may modify the grouping of young adolescents based upon student needs identified in their strategic plans under § 5.203 (relating to strategic plans).

(b) Curriculum and instruction in the middle level program shall focus on mastery of an integrated common core of knowledge and the development of critical and creative thinking, information literacy, a healthful lifestyle and active participation in the school and community.

(c) Planned courses that provide instruction in the following areas shall be taught to every student in the middle level program. These planned courses may be taught as separate planned courses or may be integrated with other appropriate planned courses:

(1) Language arts, integrating reading, composition, listening, speech, literature and grammar.

(2) Mathematics, including mathematical reasoning, algebra and problem-solving.

(3) Science, which involves active learning experiences and which may include laboratory experiments and if appropriate information about agriculture and agricultural science.

(4) Social studies, including history of the United States and Pennsylvania, world history, multicultural studies, geography, civics and economics.

(5) Environmental education, including scientific, social, political and economic aspects of ecology.

(6) Information skills, including access to traditional and electronic information sources computer use and research.

(7) Wellness and fitness, incorporating physical education, aerobic fitness, regular physical activity and health, including instruction about prevention of human immunodeficiency virus (HIV) infection/acquired immunodeficiency syndrome (AIDS) under § 5.220 (relating to HIV/AIDS) and instruction every year about prevention of alcohol, chemical and tobacco abuse.

(8) The arts, including art, music, dance and theater.

(9) Career education, including exposure to various career options and the educational preparation necessary to achieve those options.

(10) Technology education, emphasizing practical application of academic skills and problem solving experiences facilitated by technology.

(11) Home economics, including human development, interpersonal relationships and preparation for adult roles in families and communities.

(d) This section does not preclude the teaching of other planned courses designed to achieve a school district's mission, goals and student learning outcomes.

(e) School districts shall determine the most appropriate way to operate their middle level programs to achieve the purposes under subsection (b) and the mission, goals and student learning outcomes in their strategic plans under § 5.203.

§ 5.213 High school education.

(a) Instruction in the high school program shall focus on the development of abilities needed to succeed in work and advanced education through a planned sequence of courses. The Department will approve school district strategic plans only if they provide evidence that all students are offered increasingly challenging instruction designed to achieve this objective as they proceed through high school. Strategic plans that permit students to enroll in a series of introductory or general courses not leading to more advanced instruction will not be approved.

(b) Curriculum and instruction in the high school program shall provide all students opportunities to develop adult life roles, the skills of analysis, synthesis, evaluation and problem-solving, information literacy and significant knowledge in one or more areas of concentrated study.

(c) Planned courses that provide instruction in the following areas shall be taught to every student in the high school program. These planned courses may be taught as separate planned courses or may be integrated with other appropriate planned courses:

(1) Language arts, integrating reading, composition, listening, speech, literature and grammar.

(2) Mathematics, including problem-solving, mathematical reasoning, algebra and geometry.

(3) Science, including participation in hands-on experiments and at least one laboratory science chosen from life sciences, earth and space sciences, chemical sciences, physical sciences and agricultural sciences.

(4) Social studies, including history of the United States and Pennsylvania, world history, multicultural studies, geography, civics and economics.

(5) Environmental education, including scientific, social, political and economic aspects of ecology.

(6) The arts, including art, music, dance and theater.

(7) Use and applications of microcomputers and software, including word processing, database, spreadsheets and telecommunications.

(8) Information skills, including access to traditional and electronic information sources, computer use and research.

(9) Wellness and fitness, incorporating physical education, aerobic fitness, regular physical activity and health, including instruction about prevention of human immunodeficiency virus (HIV) infection/acquired immunodeficiency syndrome (AIDS) under § 5.220 (relating to HIV/AIDS) and instruction every year about prevention of alcohol, chemical and tobacco abuse.

(d) The following planned courses shall be made available to every student in the high school program:

(1) Vocational-technical education under §§ 5.3 and 5.218 (relating to definitions; and vocational-technical education).

(2) Business education, including courses to assist students in developing business and information technology skills.

(3) Foreign languages under § 5.215 (relating to languages).

(4) Family life education, incorporating preparation for adult roles and responsibilities including parenting, coping skills and nutrition.

(5) Technology education, incorporating technological problem-solving and the impacts of technology on individuals and society.

(e) College-level advanced placement courses may be offered as planned courses in the high school curriculum.

(f) This section does not preclude the teaching of other planned courses designed to achieve a school district's mission, goals and student learning outcomes.

(g) School districts shall determine the most appropriate way to operate their high school programs to achieve the purposes under subsection (a) and the mission, goals and student learning outcomes in their strategic plans under § 5.203 (relating to strategic plans).

§ 5.214. High school graduation requirements.

(a) In order to graduate from high school, a student shall demonstrate achievement of the student learning outcomes under § 5.202 (relating to student learning outcomes) and the student learning outcomes required by the school district and specified in the strategic plan under § 5.203 (relating to strategic plans). The strategic plan shall describe the criteria the district uses to determine achievement of the student learning outcomes for purposes of high school graduation.

(b) In order to graduate from high school, a student shall complete a project in one or more areas of concentrated study under the guidance and direction of the high school faculty. The purpose of the project, which may include research, writing, or some other appropriate form of demonstration, is to assure that the student is able to apply, analyze, synthesize and evaluate information and communicate significant knowledge and understanding. Projects may be undertaken by individual students or groups of students.

(c) Each school district shall describe in its strategic plan under § 5.203 how its planned courses are designed to prepare students to meet the requirements of subsection (a).

(d) Under § 14.39 (relating to course completion and diplomas), an eligible student as defined in § 14.1 (relating to definitions) who satisfactorily completes a special education program developed by an Individualized Education Program team shall be granted and issued a regular high school diploma by the school district of residence. This subsection applies if an eligible student's special education program does not otherwise meet all requirements of this chapter.

§ 5.215. Languages.

(a) Every school district shall provide instruction in at least two languages in addition to English, at least one of which shall be a modern language, and at least one of which shall be offered in a minimum 4-year sequence in the secondary program (middle level and high school).

(b) Foreign language instruction under subsection (a) may be offered beginning at any grade level, including the elementary grades.

(c) Prior to high school graduation, every student shall demonstrate the ability to converse in at least one language in addition to English, including the student's native language if other than English. This subsection applies to students entering first grade in the school year following the year in which the initial strategic plan is submitted under § 5.203 (relating to strategic plans).

§ 5.216. ESOL.

Every school district shall provide a program for each student whose dominant language is not English for the purpose of facilitating the student's achievement of English proficiency. Programs under this section shall include appropriate bilingual-bicultural or English as a second language (ESL) instruction.

§ 5.217. Physical education and athletics.

(a) Physical education shall be taught as required under §§ 5.211(e)(5) and (f)(8), 5.212(c)(7) and 5.213(c)(9) (relating to elementary education: primary and intermediate levels; middle level education; and high school education).

(b) The physical education program shall be adapted for students who are unable to participate in the regular physical education program.

(c) The physical education program shall provide coeducational instruction, except that separation by sex may be permitted in courses involving contact sports. Separation by sex may not be used to exclude students of either sex from participating in any physical education instruction.

(d) In addition to physical education instruction under subsections (a)-(c), students of both sexes shall have equal access in interscholastic and intramural athletic programs to all of the following:

(1) School facilities.

(2) Coaching and instruction.

(3) Scheduling of practice time and games.

(4) Number of activities at each level of competition.

(5) Equipment, supplies and services.

(6) Funding appropriate to the sport.

(e) School districts may sponsor coeducational teams in interscholastic and intramural sports programs.

(f) Interscholastic and intramural teams playing contact sports may be separated by sex, but this subsection may not be used to exclude students of either sex from participating in a sport.

§ 5.218. Vocational-technical education.

(a) Vocational-technical education courses shall be developed in the planned course format and shall be accessible to all high school students attending those grades in which vocational-technical education courses are offered.

(b) Vocational-technical education courses may be taught at AVTSs or other high schools.

(c) Vocational-technical education programs shall consist of a series of planned academic and vocational-technical education courses that are articulated with one another so that knowledge, skills, attitudes and behaviors are taught in a systematic manner. When appropriate, vocational-technical education programs may also include cooperative vocational-technical education as defined in § 6.1 (relating to definitions) and participation in vocational student organizations to develop leadership skills and positive attitudes.

(d) Vocational-technical education courses shall include content based upon occupational analysis, clearly stated performance objectives deemed critical to successful employment and assessment of student competencies based upon performance standards. In listing planned courses in its strategic plan under § 5.203 (relating to strategic plans), a school district or AVTS shall indicate which courses meet the requirements of this section and Chapter 6 (relating to vocational-technical education).

(e) The record of a student enrolled in a vocational-technical education program shall include the student's educational and occupational objectives and the results of the assessment of student competencies under subsection (d).

(f) Safety education, consisting of safety practices, accident prevention, occupational health habits and environmental concerns shall be integrated into the instruction and practices in vocational-technical education programs.

(g) School districts and AVTSs administering vocational-technical education programs shall develop written policies regarding admissions. Course announcements, guidance materials and other communications shall convey the philosophy of equal access to students considering enrolling in AVTSs and shall include a description of admissions policies. The policies shall assure that when admissions to AVTSs must be limited the admissions shall be on a nondiscriminatory basis according to criteria which include the following:

(1) The aptitude of the student for the applicable vocational-technical education program.

(2) Other factors to assure fair access of students to the vocational-technical education programs that do not unfairly penalize students who have not achieved high grades in academic subjects but who otherwise qualify for and are likely to succeed in the program.

§ 5.219. Special education.

(a) Under Chapter 14 (relating to special education services and programs), eligible students as defined in § 14.1 (relating to definitions) shall be provided an education which approximates as nearly as possible the curriculum of the school district under this chapter.

(b) Under Chapter 14 gifted students as defined in § 342.1 (relating to definitions) shall be provided an education that enables them to participate in acceleration or enrichment, or both, as appropriate.

(c) The educational program provided to exceptional students shall be in accordance with their Individualized Education Programs under § 14.32 (relating to IEP), even if the Individualized Education Program of a student does not otherwise meet all the requirements of this chapter.

(d) Planned courses for exceptional students shall conform to the requirements established for planned courses in §§ 5.3 and 14.38 (relating to definitions; and planned courses) as they relate to planned courses.

§ 5.220. HIV/AIDS.

(a) Instruction regarding prevention of human immunodeficiency virus (HIV) infection/acquired immunodeficiency syndrome (AIDS) under §§ 5.211(g)(6), 5.212(c)(7) and 5.213(c)(9) (relating to elementary education: primary and intermediate levels; middle level education; and high school education) shall follow the requirements of subsections (b) and (c).

(b) Educational materials and instruction shall be determined by the local school district and be appropriate to the age group being taught. The program of instruction shall include information about the nature of the disease, the lack of a cure, the ways the disease is transmitted and how infection can be prevented. The school district may omit instruction in the elementary grades on the transmission of the disease through sexual activity. Programs discussing transmission through sexual activity shall stress that abstinence from sexual activity is the only completely reliable means of preventing sexual transmission. Programs shall stress that avoidance of illegal drug use is the only completely reliable means of preventing transmission through shared drug paraphernalia.

(c) A school district shall excuse a pupil from HIV/AIDS instruction when the instruction conflicts with the religious beliefs or moral principles of the pupil or parent or guardian of the pupil and when excusal is requested in writing. Prior to the commencement of instruction, a school district shall publicize that detailed curriculum outlines and curricular materials used in conjunction with the instruction are available to parents and guardians during normal school hours or at teacher-parent conferences. Curricular materials, where practical, shall be made available by the school district for home instruction use by a parent or guardian of a student excused from the district's HIV/AIDS instruction.

SCHEDULING AND LEARNING OPTIONS

§ 5.221. Scheduling.

(a) Kindergarten programs shall provide each kindergarten student with at least 2 1/2 hours of instruction each day for the full school term unless the school district obtains prior Department approval for an alternative kindergarten program.

(b) A school district shall obtain approval of the Department prior to scheduling 1/2-day sessions other than in kindergarten under subsection (a).

(c) A school district shall obtain approval of the Department prior to establishing a new school or changing school organization.

(d) Planned courses offered in summer school may be designed as credit or noncredit offerings.

§ 5.222. Options for achieving student learning outcomes.

(a) Course completion. Satisfactory completion of planned courses as determined by the principal in consultation with the teacher shall contribute to the achievement of student learning outcomes.

(b) Assessment. Regularly enrolled students may demonstrate achievement of student learning outcomes by successful completion of assessments, regardless of the instructional time spent, under procedures and policies established by the superintendent and the board of school directors.

(c) Independent study. Students may demonstrate achievement of student learning outcomes as a result of participation in independent study courses.

(d) Other educational experiences. Students may demonstrate achievement of student learning outcomes through community service, correspondence study, attendance at summer school, weekend classes, study at summer camp, work experiences and educational travel under procedures and policies established by the superintendent and the board of school directors. The procedures and policies shall include methods of assessing student learning outcomes.

(e) Higher education courses. The following provisions apply to achieving student learning outcomes in higher education courses:

(1) High school students enrolled in an accredited institution of higher education may, with the prior approval of the high school principal, receive credit for college courses when all of the following provisions are met:

(A) The course is taught at the college level and is recognized by the higher education institution as a credit-bearing course.

(B) The student satisfactorily completes the requirements of the college course or passes the College Advanced Placement Examination in the subject.

(C) The record of the college course completion has been submitted by the higher education institution to the sending high school.

(2) Students may also leave high school prior to their senior year to attend accredited institutions of higher education on a full-time basis under procedures and policies established by the superintendent and the board of school directors. The high school diploma shall be awarded to these students upon successful completion of requirements set forth by the superintendent and board of school directors.

§ 5.223. Grade structure.

[illegible] chapter does not require educational programs to be organized in traditional grades according to students' chronological ages or academic achievement levels.

ASSESSMENT

§ 5.231. State assessment system.

(a) The State assessment system shall be designed to serve the following purposes:

(1) Determine the degree to which school programs provide for achievement of student learning outcomes under § 5.202 (relating to student learning outcomes).

(2) Provide results to school districts for consideration in the development of strategic plans under § 5.203 (relating to strategic plans).

(3) Provide information to State policymakers including the General Assembly and the Board regarding the achievement of student learning outcomes.

(4) Provide information to the general public regarding the achievement of student learning outcomes.

(b) The Department will develop or cause to be developed State assessments of a representative sample of student learning outcomes to implement this section. In developing assessments, the Department will consult with Pennsylvania educators regarding the specific outcomes to be assessed and the performance standards to be met. State assessments developed under this section shall not include student names, identification numbers or individually identifiable information.

(c) The State assessment system shall be implemented beginning in the 1991-1992 school year for students in those school districts scheduled to submit strategic plans under § 5.203 in the fall of 1993. The State assessment system shall be implemented annually thereafter for students in school districts scheduled to develop strategic plans or mid-point revisions of strategic plans under § 5.203 during the following school year.

(d) School districts may participate in the State assessment system more frequently than required under subsection (c).

(e) Beginning in the 1991-1992 school year the State assessment system shall include assessments of the following, except that the assessments under paragraph (3) shall be implemented beginning in the 1992-1993 school year:

(1) Primary and intermediate level assessments, comprised of assessments of the following:

(i) Reading outcomes, including comprehension and thinking skills, administered to students in grade 5.

(ii) Mathematics outcomes, including concepts, comprehension and problem-solving, administered to students in grade 5.

(iii) Writing outcomes, based upon a composition sample administered to students in grade 6.

(2) Middle level school assessments comprised of assessments of the following:

(i) Reading outcomes, including comprehension and thinking skills, administered to students in grade 8.

(ii) Mathematics outcomes, including concepts, comprehension and problem-solving, administered to students in grade 8.

(iii) Writing outcomes, based upon a composition sample administered to students in grade 9.

(3) High school assessments comprised of assessments of the following:

(i) Reading outcomes, including comprehension and thinking skills, administered to students in grade 11.

(ii) Mathematics outcomes, including concepts, comprehension and problem-solving, administered to students in grade 11.

(f) Beginning in the 1993-1994 school year, the Department will recommend to the Board a plan to expand the State assessment system to include assessments of additional student learning outcomes under § 5.202 (relating to student learning outcomes). Any expansion of the State assessment system will be authorized by the Board through a revision of this chapter.

(g) The Department will implement provisions for security of the State assessment system, including the following provisions:

(1) Action by a professional employe or commissioned officer which is willfully designed to divulge test questions, falsify student scores or in some other fashion compromise the integrity of the State assessment system shall be subject to disciplinary action under sections 1259-1267 of the act of December 14, 1989 (P.L. 612, No. 71) (24 P.S. §§ 12-1259-1267).

(2) Cheating by students or employes other than those covered in paragraph (1) shall be subject to disciplinary action by the school district.

(3) Cheating or breaches of assessment security shall be reported to the Secretary as soon as detected.

(h) The Secretary has the authority to establish guidelines for the administration of the State assessment system.

(i) The Secretary will report annually to the Board and the General Assembly information and pertinent data relating to the State assessment system. The Secretary will also provide each school district participating in the State assessment system information and pertinent data for the school district and its students.

§ 5.232. School district assessment.

(a) Each school district shall design a school district assessment system to do the following:

(1) Determine the degree to which students are achieving State and locally determined student learning outcomes under § 5.203(c)(3). The district shall provide assistance to students not achieving the learning outcomes, and the types of assistance to be provided shall be indicated in the district's strategic plan under § 5.203 (relating to strategic plans).

(2) Use assessment results to improve curriculum and instructional practices and to develop future strategic plans under § 5.203.

(3) Provide summary information requested by the Department regarding the achievement of student learning outcomes, which shall not include student names, identification numbers or individually identifiable information.

(4) Provide summary information to the general public regarding the achievement of student learning outcomes, which shall not include student names, identification numbers or individually identifiable information.

(b) The school district assessment system shall be implemented no later than the year in which a school district develops its strategic plan under § 5.203 and shall provide the district continuing information about the achievement of individual students and periodic information about the achievement of student learning outcomes for district planning purposes.

(c) The school district assessment system shall be described in the district's strategic plan under § 5.203(b)(5) and shall be subject to approval by the Department.

(d) The school district assessment system shall be designed to include a variety of assessment strategies which may include the following:

(1) Written work by students.

(2) Scientific experiments conducted by students.

(3) Works of art or musical, theatrical or dance performances by students.

(4) Other demonstrations or performances by students related to specific student learning outcomes.

(5) Examinations developed by teachers to assess specific student learning outcomes.

(6) Diagnostic assessments.

(7) Other measures as appropriate, which may include standardized tests.

(e) The school district assessment system shall include provisions for developing and continually analyzing portfolios of student work. Portfolios may include samples of student work under subsection (d)(1)-(4), written testimony from authorities and summary indicators, including transcripts, test results or a personal resume.

(f) Individual test information shall be maintained in a student's educational record in a manner consistent with the minimum requirements of section 438 of the Family Educational Rights and Privacy Act of 1974 (20 U.S.C.A. § 1232g) and 34 CFR Part 99 (relating to family educational rights and privacy).

PROVISIONS RELATING TO OTHER THAN PUBLIC SCHOOLS

§ 5.241. Certification by principal of nonpublic nonlicensed school.

Elementary or secondary nonpublic nonlicensed schools not already having done so, and all such schools not now in existence but desiring to conduct an education program in the future, shall, within 30 days of beginning classes, file the following notarized certificate with the Secretary.

I certify that this school is a day school for the education of children in which the following mandated programs or courses of study are taught in the English language for a minimum of 180 days of instruction or a minimum of 450 hours of instruction in the kindergarten program, a minimum of 900 hours of instruction in the elementary schools and a minimum of 990 hours of instruction in the secondary schools: Elementary school level - English, including spelling, reading and writing, arithmetic, geography, the history of the United States and

Pennsylvania, science, civics, including loyalty to the State and National Government, safety education, and the humane treatment of birds and animals, health, including physical education and physiology, music and art. Secondary school level - art, English, health, mathematics, music, physical education, science and social studies (including U.S. and Pennsylvania history).

Name of School______________________________

Location of School______________________________

____

Mailing Address (If Different from Above)____________________

____

County____________________ IU #____________

Public School District in
which school is located________________________

Nonpublic Principal____________________________

____
(Signature of Principal)

Telephone Number: Area Code (   ) __________________

NOTARIZATION:

Return to:

Division of Nonpublic and Private School Services
Bureau of Basic Education Support Services
Department of Education
333 Market Street
Harrisburg, PA 17126-0333

§ 5.242. Credentials other than the high school diploma.

The requirements for a Commonwealth secondary school diploma shall be as follows:

(1) The Commonwealth secondary school diploma may be issued to an applicant who is a resident of this Commonwealth and does not possess a secondary school diploma upon presentation of evidence of full matriculation and the satisfactory completion of a minimum of 1 full year or 30 semester hours of study at an accredited institution of postsecondary education.

(2) In addition to the provisions of paragraph (1), the Commonwealth secondary school diploma may be issued to an applicant who is a resident of this Commonwealth, does not possess a secondary school diploma and is not enrolled in a public, licensed private, registered accredited or licensed nonpublic secondary school upon earning a passing score as determined by the Department on the high school level tests of General Educational Development (GED). A person 18

years of age or older may qualify for GED testing upon request. A person between 16 and 18 years of age may qualify for GED testing upon the issuance of a court order or at the written request of one of the following:

(i) An employer who requires a high school equivalency credential for job opportunities.

(ii) An official of an accredited institution of postsecondary education which accepts applicants on the basis of GED test scores.

(iii) A recruiting officer of a branch of the armed forces that requires a high school equivalency credential for entry of new recruits.

(iv) The director of a State institution on behalf of residents, patients or inmates.

(3) The Department will not ordinarily issue a diploma until after the high school class of which the applicant was a member has been graduated. This restriction may be waived by the Department upon the recommendation of the school district for persons between 16 and 18 years of age who meet the higher education or GED requirements for the secondary school diploma.

§ 5.243. Correspondence schools.

An applicant 18 years of age or older shall be issued a Certificate of Preliminary Education upon presentation to the Department of evidence of the issuance of a high school diploma by an accredited private correspondence school licensed or approved by the State Board of Private Licensed Schools.

§ 5.244. Students in special situations.

(a) A foreign student without educational credentials may earn the Commonwealth secondary school diploma by meeting the requirements under § 5.242 (relating to credentials other than the high school diploma).

(b) A graduate of a secondary school in another state which is not on an approved list of secondary schools may earn an appropriate credential by passing an examination administered by the education agency of that state or by its designee or by meeting the requirements for the Commonwealth secondary school diploma under § 5.242 (relating to credentials other than the high school diploma).

(c) Credit granted by a public school in this Commonwealth shall be accepted by all public schools and institutions in this Commonwealth upon the transfer of a student.

ENFORCEMENT AND IMPLEMENTATION

§ 5.251. Allegations of deficiencies.

(a) The Secretary will receive and investigate allegations of curriculum deficiencies from professional employes, commissioned officers, parents of students or other residents of a school district or AVTS.

(b) The Secretary will notify the school district or AVTS superintendent of allegations and may require the superintendent to submit any of the following:

(1) Relevant written planned courses.

(2) A series of written articulated planned courses.

(3) Relevant student assessment information.

(4) Information on staff assignments.

(5) Other information pertinent to investigating a specific allegation.

(c) If the Secretary determines that a curriculum deficiency exists, the school district or AVTS shall be required to submit to the Secretary for approval a plan to correct the deficiency.

(d) Within 1 year of the implementation of a corrective action plan under subsection (c), the Secretary will review the actions taken to correct the deficiency. If the deficiency remains uncorrected, the Secretary will send a formal notice of deficiency to the school district or AVTS board of school directors, and the notice shall be announced at the school board meeting immediately following its receipt.

(e) If the school district or AVTS does not take appropriate actions to correct the deficiency after the notice of deficiency is announced, the Secretary will take action under State law.

§ 5.252. Exceptions.

(a) The Secretary may grant exceptions to specific provisions of this chapter when it is necessary to adapt them to the curriculum needs of individual school entities or to facilitate transition to the revised provisions of this chapter under the following conditions:

(1) The request for an exception shall be in writing and shall include relevant information supporting the need for the exception.

(2) The exception shall be valid only for the school year for which it is granted, unless otherwise specified.

(3) The request shall be made prior to initiating the action requiring approval and shall have the prior approval of the school entity's board of school directors.

(b) The Secretary will report annually to the Board on the status of requests for exceptions under this section.

§ 5.253. Implementation schedule.

(a) Unless specifically noted in this chapter, the revised provisions of this chapter take effect when the Board adopts student learning outcomes under § 5.202 (relating to student learning outcomes).

(b) The initial strategic plans under § 5.203 (relating to strategic plans) shall be developed by a school district or AVTS during the 1992-1993, 1993-1994 or 1994-1995 school year for submission by September 30 of 1993, 1994 or 1995 under an implementation schedule developed by the Department. The Department will develop the planning cycle under § 5.203(a) and (b) (relating to strategic plans) to assure that the school districts and AVTSs participating in State assessments under § 5.231 (relating to State assessment system) annually represent a Statewide sample and will, to the maximum extent possible, permit school districts and AVTSs to volunteer for participation each year. The planning cycle developed by the Department will not extend the period for submitting an initial strategic plan under § 5.203 beyond September 30, 1995. Beginning in the 1992-1993 school year, school districts and AVTSs which would have been required to submit long-range plans under § 5.13 (relating to educational planning and assessment) will no longer be required to do so.

(c) In the school year in which a school district or AVTS submits its initial strategic plan under § 5.203 the district or AVTS shall implement professional development, curriculum development and assessment development activities identified in the strategic plan and shall receive technical assistance from the Department.

(d) The high school graduation requirements in paragraphs (1) and (2) of this subsection shall remain in effect until superseded by the requirements under § 5.214 (relating to high school graduation requirements). This shall occur for each school district with the class entering ninth grade in the year following the year in which the initial strategic plan is submitted under § 5.203.

(1) Each board of school directors shall identify planned courses for which credit toward graduation shall be awarded. These written plans shall be filed at the school district and be available upon request for review by designated representatives of the Department.

(2) In grades 9 through 12 every student shall obtain at least 21 units of credit.

Units of Credit	Course Title
4	English
3	Mathematics
3	Science
3	Social Studies
2	Arts or Humanities or both
1	Health and Physical Education
5	Student selects five additional courses from among those approved for credit toward graduation by the school district, including approved vocational education courses.

(e) The specific curriculum requirements in paragraphs (1) and (2) of this subsection shall remain in effect until superseded by the requirements under §§ 5.211-5.213 (relating to elementary education: primary and intermediate levels; middle level education; and high school education). This shall occur for each school district and AVTS beginning in the school year following the year in which the initial strategic plan is submitted under § 5.203.

(1) Elementary grades.

(i) Required planned courses for all students to be taught every year. The following subjects shall be taught to every student every year, shall conform to the criteria established for planned courses, and may be integrated into other appropriate planned courses:

(A) English (including listening and speaking).

(B) Reading.

(C) Spelling.

(D) Writing.

(E) Mathematics.

(F) Science.

(G) Social studies.

(H) Health.

(I) Physical education.

(J) Music.

(K) Art.

(ii) Required planned courses for all students to be taught at least once during the elementary grades. The following subjects shall be taught to every student at least once during the elementary grades. These planned courses may be taught as separate planned courses or integrated in other appropriate planned courses.

(A) History of United States.

(B) History of Pennsylvania.

(C) Geography.

(D) Civics.

(E) Safety education.

(2) Secondary grades.

(i) Required planned courses for all students to be taught every year. The following subjects shall be taught to every student every year and shall conform to the criteria established for planned courses:

(A) English, which may include one planned course in speech.

(B) Physical education, which may be offered as a fractional planned course.

(ii) Required planned courses for all students to be taught during the secondary grades.

(A) Each of the following planned courses shall be taught during the secondary grades:

(I) Mathematics. Five planned courses, three of which shall be 120 clock hours each.

(II) Science. Five planned courses, which may include laboratory sciences, three of which shall be 120 clock hours each.

(III) Social Studies. Five planned courses, three of which shall be 120 clock hours each, to be taken from the social sciences, which may include anthropology, economics, geography, history, political science, psychology, sociology, American culture, world cultures and history and government of the United States and Pennsylvania as required in section 1605 of the School Code (24 P.S. § 16-1605).

(B) The following planned courses shall be taught. They may be offered as fractional planned courses.

(I) Art. Two planned courses.

(II) Music. Two planned courses.

(III) Home economics. One planned course.

(IV) Industrial arts. One planned course.

(V) Reading. One planned course.

(VI) Health. Two planned courses.

(VII) Environmental education. One planned course, which may be integrated in other appropriate planned courses.

(C) The following planned courses shall be offered to all students enrolled in secondary grades:

(I) Vocational education.

(II) Business education.

(III) Consumer education.

(IV) Foreign languages.

(V) Laboratory sciences, including biology, physics and chemistry.

(VI) Computer science, which may be integrated in other appropriate planned courses.

(VII) Industrial arts.

(VIII) Home economics.

(f) School districts may begin to implement the revised provisions of this chapter earlier than otherwise required under this section by submitting to the Department for approval an interim plan describing its transition to the revised provisions. The interim plan shall be submitted at a time and in a form that the Secretary requires.

REGULATIONS
OF THE
STATE BOARD OF EDUCATION OF PENNSYLVANIA

CHAPTER 6
VOCATIONAL-TECHNICAL EDUCATION

(Chapter adopted March 12, 1992; Section 6.23 revised May 14, 1992)

GENERAL PROVISIONS

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	6.52.	Satellite vocational-technical education.
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Section 6.71. Vocational-technical guidance services.
6.72-6.78. (Reserved).

AVTSs

Section 6.81. AVTSs.
6.82-6.83. (Reserved).

Section 6.91. (Reserved).

GENERAL PROVISIONS

§ 6.1. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

Adult vocational-technical education - Occupational training, related instruction and services intended to prepare youth and adults, including postsecondary students who have left or completed high school and who desire to prepare for entrance or reentrance into the labor market or to acquire new or supplementary skills to achieve stability or advancement in their current employment.

Apprenticeship program - A program which combines theory learned in secondary schools, postsecondary education institutions and work settings with practical applications learned in work settings, leading to employment in the field of training. Apprenticeship programs are designed jointly by employers and schools under the supervision of the Department of Education to develop specific employment skills based on statewide competency standards and assessments of the competence of apprentices.

AVTS - Area vocational-technical school - An area vocational-technical school which is a public school which provides vocational-technical education to secondary school students, out-of-school youth and adults in a geographical area comprised and operated by one or more school districts and established under sections 1840-1853 of the Public School Code of 1949 (24 P.S. §§ 18-1840--18-1853).

Cooperative vocational-technical education - A planned method of instruction developed through a signed cooperative arrangement among school representatives, students, parents and employers in the community to provide students with an opportunity to alternate in-school academic and vocational-technical instruction with entry-level paid employment in an occupational field, in which the student's total occupational work experience is planned, coordinated and supervised by the school in close cooperation with the employer.

Employment area - A geographic area where vocational-technical education program completers are most likely to be employed.

Satellite vocational-technical education program - A program established, maintained and administered by an AVTS board in a participating school district facility as an integral part of the AVTS.

School entity - A school district, intermediate unit or AVTS.

Tech-prep program - A combined secondary and postsecondary program which leads to an associate degree or certificate and employment by providing technical preparation in engineering technology, applied science, mechanical, industrial or practical art or trade, agriculture, health or business, including development of competence in mathematics, science and communications through a sequential course of study.

Vocational-technical education - Programs under public supervision and control which provide an organized process of learning experiences designed to develop integrated academic and occupational skills, knowledge, attitudes, work habits and leadership ability for entry into and advancement within various levels of employment in occupational areas of agriculture, business, marketing and distribution, health, home economics and trade and industry and for participation in postsecondary education and training. Apprenticeship and tech-prep programs may be used by school entities to deliver vocational-technical education to secondary school students.

§ 6.1a. Scope.

(a) This chapter applies to school districts and AVTSs offering secondary or adult vocational-technical education programs.

(b) Degree-granting postsecondary institutions seeking approval to receive State or Federal funds for vocational-technical education shall meet the requirements under § 42.51 (relating to approval) and the applicable definitions contained in § 31.2 (relating to definitions).

§ 6.2. Standards and reports.

(a) The Secretary is responsible for the promulgation of standards appropriate for implementing this chapter and § 5.218 (relating to vocational-technical education). Present standards, to the extent that they are inconsistent, are superseded by this chapter.

(b) The Secretary will report annually to the Board on the status of vocational-technical education programs, including tech-prep and apprenticeship programs. Reports will include numbers and types of programs, numbers of students, post-program status of students, and for apprenticeship programs statewide competency standards and assessment information.

§ 6.3. Exceptions.

Exceptions to specific regulations in this chapter may be granted by the Secretary when it is necessary to provide for unusual conditions.

[PROGRAM APPROVAL AND PLANNING]

SS 6.11. - 6.14. 'Reserved).

ADVISORY GROUPS

§ 6.21. Local advisory committee.

(a) A school district or AVTS administering or planning to administer vocational-technical education programs shall appoint an advisory committee.

(b) Membership on the committee shall consist of business and industry representatives, public sector employers, agriculture, labor organizations, community organizations, postsecondary education institutions and the general public.

(c) The appointed advisory committee shall give advice to the board and the administration concerning the program of the school, including its general philosophy, student learning outcomes under § 5.202 (relating to student learning outcomes), the strategic plan under § 5.203 (relating to strategic plans), course offerings, support services, safety requirements and the skill needs of employers.

(d) An advisory committee may serve multiple institutions where employment areas overlap.

(e) A minimum of one meeting shall be held each year.

§ 6.22. Administrative committee.

(a) An administrative committee, composed of chief school administrators representing participating school districts, shall be included in the organization of each AVTS.

(b) The committee shall play an integral part in the development of the AVTS strategic plan under § 5.203 (relating to strategic plans) and advise the AVTS board and the administration concerning the educational program and policies of the school.

§ 6.23. Occupational advisory committee.

(a) An occupational advisory committee shall be established for each vocational-technical education program or cluster of related programs offered by a school district or AVTS. The committee shall meet at least once each year to advise the board, administration and staff on curriculum, equipment, instructional materials, safety requirements, program evaluation and other related matters and to verify that the programs meet industry standards and if appropriate licensing board criteria and that they prepare students with occupation related competencies.

(b) Membership shall consist of current employers and employes in occupations related to the program area.

[INSTRUCTION]

§§ 6.31. - 6.35. (Reserved).

[EVALUATION]

§§ 6.41. - 6.42. (Reserved).

SATELLITE PROGRAMS

§ 6.51. (Reserved).

§ 6.52. Satellite vocational-technical education.

A satellite vocational-technical education program may be operated by an AVTS board in conformity with a memorandum of understanding adopted with the participating school district's board of school directors.

§§ 6.53. - 6.54 (Reserved).

EQUIPMENT

§§ 6.61. - 6.62 (Reserved).

§ 6.63. Contemporary equipment.

Equipment will be deemed appropriate if it is comparable, insofar as practical, to that used in occupations or households for which vocational-technical education is provided.

GUIDANCE

§ 6.71. Vocational-technical guidance services.

Certified guidance personnel in each secondary school and AVTS shall be assigned responsibility to provide pupils with vocational-technical guidance services consistent with § 5.218 (relating to vocational-technical education).

§§ 6.72. - 6.78. (Reserved).

§ 6.81. AVTSs.

(a) Attendance areas. AVTS attendance areas shall conform to the plan of the State Board for Vocational Education. Boards of school directors may petition the State Board for Vocational Education for attendance area assignment or reassignment.

(b) Establishment of schools. The following provisions apply to the establishment of AVTSs:

(1) Where more than one district constitutes an attendance area, the appropriate intermediate unit may, and upon the request of a school district shall, call for an election by the boards of school directors within the attendance area to determine if an AVTS shall be established.

(2) A school district within the attendance area may elect to participate in the establishment of the AVTS.

(3) Where a single school district constitutes an attendance area, the board of school directors of that district may establish and operate AVTSs and be considered an AVTS board.

(c) Articles of agreement. The following provisions apply to articles of agreement for the establishment and operation of AVTSs:

(1) The boards of school directors of the school districts electing to participate in the AVTS shall enter into a written agreement setting forth the rights and obligations of the participating school districts.

(2) No change may be made in the articles of agreement under paragraph (1) without the consent of each participating school district by the affirmative vote of each board of school directors.

(3) No school district may withdraw from the articles of agreement under paragraph (1) without the consent of each participating school district.

§§ 6.82. - 6.83. (Reserved).

§ 6.91. (Reserved).

PROPOSED REGULATIONS
OF THE
STATE BOARD OF EDUCATION OF PENNSYLVANIA

CHAPTER 5
CURRICULUM

§ 5.202. Student learning outcomes.

(a) In designing educational programs, school districts shall provide for the attainment of the student learning outcomes under subsection (f) and any other student learning outcomes which they develop and describe in their strategic plans under § 5.203(c) (relating to strategic plans) as requirements for graduation from high school.

(b) A school district's curriculum shall be designed to provide all students with focused learning opportunities needed to attain these outcomes.

(c) As required by § 5.203(c)(3), school districts shall develop outcomes to be attained by students at transition points from one organizational level to another and may develop outcomes to be attained at additional transition points. These transitional outcomes shall be designed to assure students are making progress toward attainment of the outcomes needed to graduate from high school.

(d) School districts shall develop standards for assessing the attainment of the outcomes for purposes of high school graduation and strategies for assisting students to attain them.

(e) The student learning outcomes in subsection (f) will be attained by students in various ways and will be assessed by school districts in various ways. Some will result from successful completion of a course; some from successful completion of a series of courses; some from independent study, community service or work experience; some from participation in extracurricular activities. Some students may meet some outcome expectations before they come to school. Some outcomes will be assessed by traditional tests; some by other forms of assessment under § 5.232 (relating to school district assessment); some by teacher observation of student performance in school. Some students will need more instruction in some areas than others, and school districts are responsible for organizing programs to best accommodate the needs of their students.

(f) School districts shall prepare all students to attain the following outcomes, which are listed as follows in association with the Goals of Quality Education under § 5.201 (relating to goals of quality education):

(1) Communications.

(i) All students use effective research skills in school projects, including locating sources of information with traditional and emerging library technologies.

(ii) All students obtain meaning from a variety of complex texts (including essays, novels, stories, poems, technical documents) and identify the writer's purpose or theme, the structure of the text and devices and language used to achieve the purpose.

(iii) All students produce, for each cognitive area of study, appropriate forms of writing (including stories, poems, descriptive and persuasive essays, research papers, technical reports) that meet established standards for those forms.

(iv) All students examine and make critical judgments about all forms of communication, separating fact from opinion, recognizing propaganda, stereotypes and statements of bias, recognizing inconsistencies and judging the validity of evidence in persuasive language.

(v) All students engage critically and constructively in oral exchanges of information, including understanding and giving spoken instructions, asking and answering questions correctly and using language to achieve effective group communications.

(vi) All students obtain meaning from complex oral messages and identify the speaker's purpose, the structure of the message and devices and language used to achieve the purpose.

(vii) All students compose and make oral presentations for each cognitive area of study that are designed to persuade, inform or describe and that meet established standards of quality.

(viii) All students converse in at least one language other than English, including the native language if other than English, under § 5.215(c) (relating to languages).

(2) Mathematics.

(i) All students use numbers, number systems and equivalent forms (including numbers, words, objects and graphics) to represent theoretical and practical situations.

(ii) All students compute, measure and estimate, using appropriate tools, including modern technology such as calculators and computers, to solve theoretical and practical problems.

(iii) All students apply the concepts of patterns, functions and relations to mathematical reasoning and problem solving.

(iv) All students formulate and solve problems and explain, orally and in writing, the mathematical processes used and the reasons for using them.

(v) All students understand and apply basic concepts from algebra, geometry, probability and statistics and trigonometry to theoretical and practical situations.

(vi) All students evaluate and draw inferences from charts, tables and graphs, showing the relationships between data and real-world situations.

(vii) All students make decisions based upon the collection, organization, analysis and interpretation of statistical data and predictions of outcomes based upon the application of probability.

(3) Science and technology.

(i) All students explain how scientific principles of chemical, physical and biological phenomena have developed and relate them to real-world situations.

(ii) All students develop and apply skills of observation, data collection, analysis, pattern recognition and scientific reasoning in developing an understanding of physical, chemical, biological and earth sciences and in conducting scientific experiments.

(iii) All students explore the use and describe the impact of major technologies in economic and civic life.

(iv) All students explore and describe how modern technologies have developed from and now influence scientific developments.

(v) All students construct and evaluate systems using models to explain or predict outcomes.

(vi) All students generate hypotheses about scientific phenomena and design and conduct experiments which test those hypotheses.

(vii) All students evaluate advantages, disadvantages and ethical considerations associated with the application of science and technology to the solution of real-world problems.

(viii) All students evaluate the impact on contemporary and future life of the development and use of varied energy forms, natural and synthetic materials and production and processing of food and other agricultural products.

(4) Environment and ecology.

(i) All students evaluate the nature and functions of ecological systems and the interdependence of the human species with these systems.

(ii) All students analyze human systems, behaviors and technologies and their effect on ecological systems and environmental quality.

(iii) All students apply critical thinking to generate viable alternative solutions to environmental issues and to make environmentally sound decisions in their personal and civic lives.

(iv) All students evaluate the implications of limited natural resources and the need for conservation and stewardship of the environment.

(5) Citizenship.

(i) All students explore themes, patterns and alternative interpretations of history and geography and their meaning to the development of Pennsylvania, the United States and other nations.

(ii) All students describe the development and operations of economic, political, legal and governmental systems in the United States, assess their own relationships to those systems and compare them to those in other nations.

(iii) All students examine and evaluate problems facing citizens in their communities, State, nation and world by incorporating concepts and methods of inquiry of the various social sciences.

(iv) All students take and defend positions on complex issues confronting the United States and other nations, conducting research, analyzing alternatives, organizing evidence and arguments, and making oral presentations.

(6) Appreciating and understanding others.

(i) All students explore and articulate, in writing and speech, the similarities and differences among varied cultural values and the contributions of diverse cultural groups, including groups to which they belong.

(ii) All students relate in writing, speech or other media, the history and nature of various forms of prejudice to current problems facing communities and nations, including the United States.

(iii) All students develop skills of communicating and negotiating with others to solve interpersonal problems and conflicts.

(iv) All students work effectively with others, recognizing the intrinsic uniqueness, worth, and rights of each person.

(7) Arts and humanities.

(i) All students describe the meanings they find in various works from the arts and humanities, including visual art, music, dance, theater and literature, and judge them on the basis of aesthetic positions.

(ii) All students respond critically to works of various individuals and cultures from the arts and humanities, including visual art, music, dance, theater and literature.

(iii) All students relate various works from the arts and humanities, including visual art, music, dance, theater and literature, to the historical and cultural context within which the works were created.

(iv) All students perform or exhibit talent or skill which they have developed in the arts and humanities.

(8) Career education and work.

(i) All students investigate the multiple purposes of work and explore the range of career options, including entrepreneurship, and relate them to their individual interests, aptitudes, skills and values.

(ii) All students assess how changes in society, technology and the economy affect individuals and their careers and require them to continue learning.

(iii) All students use academic and vocational skills needed to seek, obtain, maintain and change jobs, including communication, creative thinking, decision-making, problem-solving and reasoning, use of resources, acquisition and use of information, understanding and improvement or design of systems and selection and use of appropriate technology.

(iv) All students exhibit the behaviors and habits needed to seek, obtain, maintain and change jobs, including punctuality, dependability, initiative, working effectively with others, pride in work, sociability, self-management and honesty.

(9) Wellness and fitness.

(i) All students develop knowledge of safety practices and respond appropriately in emergency situations.

(ii) All students recognize the value of good nutrition to healthful dietary habits.

(iii) All students learn and apply knowledge of the human body to decision-making related to health promotion and disease prevention and control, including HIV infection and AIDS, tobacco, alcohol and substance use.

(iv) All students develop knowledge of physical fitness, including aerobic fitness and skills in lifetime sports and outdoor activities to promote lifelong physical activity.

(v) All students develop leadership skills and the ability to work cooperatively through participation in team sports or other developmentally appropriate group activities.

(10) Personal, family and community living.

(i) All students demonstrate a comprehensive and thorough understanding of the family, its historical development, and the cultural, economic and political factors affecting it.

(ii) All students relate basic human development theories to caregiving and child care strategies.

(iii) All students apply the fundamentals of consumer behavior to managing available resources to provide for personal and family needs.

(iv) All students develop interpersonal communication, decision-making, coping and evaluation skills and apply them to personal, family and community living.

Commonwealth of Pennsylvania

STATE BOARD OF EDUCATION

REGULATIONS
OF THE
STATE BOARD OF EDUCATION OF PENNSYLVANIA

CHAPTER 49
CERTIFICATION OF PROFESSIONAL PERSONNEL

(Approved July 14, 1972; amended July 13, 1973, March 15, 1974, November 21, 1975, March 12, 1976, September 16, 1977, January 13, 1978, March 10, 1978, and July 10, 1980, September 10, 1981, September 13, 1984 - effective June 1, 1987, September 10, 1987 - effective December 26, 1987)

Subchapter A. GENERAL PROVISIONS

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THE PROGRAM

§49.1. Definitions.

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise:

Act - The Public School Code of 1949 (24 P.S. §§1-101--27-2702).

Approved teacher certification program - A sequence of courses and experiences offered by a preparing institution which is reviewed and approved by the Department.

Board - The State Board of Education of the Commonwealth (cf. Chapter 1 of this title (relating to preliminary provisions)).*

Candidate - A person seeking certification in any of the areas outlined in this chapter.

Certificate - A document prepared and issued by the Department indicating that the holder has completed a professional preparation program and is qualified to perform specific professional duties.

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*This definition was not repeated in Chapter 49 of 22 Pa. Code, but is included here for clarity.

Chief school administrator - The superintendent, intermediate unit executive director, or equivalent private school administrator.

Collegiate studies - Studies pursued at institutions which are entitled to apply to themselves the designation of college or university as defined by the Board under section 1 of the act of May 7, 1937 (P.L. 585, No. 150) (24 P.S. §2421).

Commissioned officer - District superintendents and assistant district superintendents under section 1078 of the act (24 P.S. §10-1078) (relating to Commissions; objections to election).

Continuing professional development - The formal acquisition of collegiate or in-service credits designed to improve and expand the expertise of professional personnel who receive their initial certificate in a given certificate category after June 1, 1987.

Degree-granting institution - A public college or technical institute which provides a 2 year, postsecondary college-parallel, terminal-general, terminal-technical, out-of-school youth or adult education program or a combination of these and which is established and operated under the act.

Department - The Department of Education of the Commonwealth (cf. Chapter 1 of this title (relating to preliminary provisions)).*

Induction - A process by which a variety of professional support services are provided to newly employed teachers under the guidance of professional personnel to facilitate entry into the teaching profession.

Induction plan - A description of the induction process developed and submitted by the school entity to the Department for approval which describes how a teacher will be introduced to the teaching profession under this chapter.

Invalid certificate - A certificate which no longer enables its holder to perform specific professional duties.

Occupational competency credential - A document issued by the Occupational Competency Testing Examiners which signifies that the holder possesses knowledge and skill in a technical field at a journeyman level. When the document is presented to a preparing institution or to the Department, it may be registered by the Department on the holder's vocational intern, vocational instructional or instructional certificate and it enables the holder to teach that occupational specialty.

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*This definition was not repeated in Chapter 49 of 22 Pa. Code, but is included here for clarity.

Passing score - Satisfactory achievement as determined by the Secretary in consultation with the Board on the Department prescribed tests required in this chapter.

Preparing institution - A college or university that offers a program approved by the Department to prepare professional personnel for employment in the public schools.

Professional duties - A duty the performance of which is restricted to professional personnel by the scope of their certificate.

Professional personnel - Professional employes, excluding school secretaries, as defined in section 11-1101 of the act (24 P.S. §11-1101) (relating to definitions).

Professional Standards and Practices Commission (PSPC) - An advisory body to the Board composed of educators from the fields of basic and higher education, a college student, and a parent of a child attending public school established in sections 1253-1258 of the act (24 P.S. §§12-1253 -- 12-1258).

School entity - Public schools, school districts, intermediate units and area vocational-technical schools.

Term of validity - A period of time as defined in §§49.82, 49.92 and 49.152 (relating to Instructional I and term of validity) in which the holder of a certificate is entitled to perform the professional duties for which the certificate was issued.

Test of basic skills - An assessment of a candidate's ability to communicate in formal American English and to demonstrate proficiency in fundamental computational skills.

Test of subject matter - An assessment of a candidate's knowledge of an academic field or discipline to be taught in the public schools of this Commonwealth.

Test of professional knowledge - An assessment of a candidate's knowledge of educational theory, principles of human growth and development, educational psychology and other subjects directly related to teaching.

Test of general knowledge - An assessment of a candidate's knowledge in the fields of literature, fine arts, mathematics, science and social studies.

§49.2. Inactivity and invalidity.

(a) Inactivity. A certificate or commission shall be inactive if the holder fails to meet §49.17 (relating to continuing professional development).

(b) Invalidity. A certificate shall be invalid if the holder fails to meet, or if circumstances arise as specified in, §§49.33, 49.34(b), 49.82, 49.84, 49.92, 49.102, 49.111(b), or 49.152 (relating to expiration, issuance by chief school administrator, Instructional I, collegiate credit acceptable for renewal or conversion of the Instructional I Certificate, term of validity, Educational Specialist I, Supervisory I, and term of validity.

§49.11. General.

(a) All certificates and letters of eligibility in force in this Commonwealth on September 13, 1980 shall continue in force and effect, subject to all the terms and conditions under which they were issued, until they expire by virtue of their own limitations.

(b) State certificates shall be issued as provided in this chapter and teachers shall not perform professional duties in the schools of the Commonwealth in any area for which they have not been properly certificated.

(c) The purpose of this chapter is to establish the specific requirements for the certification of persons serving in the basic schools of the Commonwealth as professional employes, temporary professional employes, substitutes, and commissioned school administrators of the Commonwealth.

§49.12. Eligibility.

In accordance with the provisions of sections 1109, 1202, and 1209 of the Public School Code of 1949 (24 P.S. §§11-1109, 12-1202, and 12-1209), every professional employe certificated to serve in the schools of the Commonwealth shall:

(1) Be of good moral character.

(2) Show a physician's certificate stating that the applicant is neither mentally nor physically disqualified from successful performance of the duties of a teacher.

(3) Be at least 18 years of age.

(4) Except for the Letter of Temporary Certification, Vocational Instructional Intern Certificate, and Vocational Instructional Certificate, have earned minimally a baccalaureate degree as a general education requirement.

§49.13. Policies.

(a) The Board, through the Secretary, will provide standards for the guidance of the preparing institutions in educating professional personnel for the schools of this Commonwealth.

(b) The Department will have the following responsibilities with respect to certification of professional personnel in the schools of this Commonwealth:

(1) Provision of advisory services to college and school personnel in matters pertaining to teacher education and certification.

(2) Designation of professional titles for personnel.

(3) Prescription of procedures for issuance of certificates.

(4) Evaluation and approval of teacher education programs leading to the certification of professional personnel. Program approval teams shall consist of professional educators from basic and higher education.

(5) Registration of certificated persons.

(6) Maintenance of records of all certificates.

(7) Assurance that each professional person is properly certificated for the specific position in which he is employed.

(8) Review and investigation of alleged violations of the provisions of this chapter.

(9) Prescription of procedures approved by the Board for the appraisal and evaluation of education and experience of applicants for any type of professional certification issued by the Department when the applicant has been denied certification and is prepared by institutions outside this Commonwealth or has appealed in accordance with guidelines approved by the Board in §49.66 (relating to appeal procedure), a decision pertaining to eligibility for certification rendered by a Commonwealth institution having an approved program. The appellant initially shall have appealed to the institution.

(10) The issuance of administrative agency interpretative policies and directives relating to professional certification and staffing in the schools of this Commonwealth as may be necessary to carry out the intent of this chapter.

(c) Except for applicants whose certification status is subject to subsection (b)(9) of this section and §49.171 (relating to general requirements), the Department will require that an applicant for a certificate shall have completed an approved program and shall be recommended by the preparing institution.

(d) The Department will have the right to review approved programs at any time. Major evaluations shall be conducted at five-year intervals by teams of professional educators appointed by the Department in accordance with subsection (b)(4) of this section and shall review process and content.

(e) The Department will accept the request of an institution to withdraw from an approved program. The Department will have the right to withdraw the approval of a program from an institution. New students shall not be accepted in a program which has lost its approved status after the date of such action.

§49.14. Approval of institutions.

To be authorized to conduct programs that lead to certificates for professional positions, institutions and any of their off-campus centers engaged in the preparation of teachers shall meet all of the following requirements:

(1) Be approved as a baccalaureate or graduate degree granting institution by the Department.

(2) Be evaluated and approved as a teacher-preparing institution to offer specific programs leading to certification in accordance with procedures established by the Department.

(3) Report to the Department, for approval, all planned changes in previously approved programs. Such report shall be made 90 days prior to the implementation of the planned changes.

§49.15. Approval of experimental programs.

The Department may enter into a written agreement with a preparing institution wishing to conduct an experimental program. The institution shall meet the requirements described in §49.14 (relating to approval of institutions). Certification shall be given to graduates of such an experimental program upon recommendation by the institution if the institution has met all of the following requirements:

(1) Submitted a detailed explanation of the experimental program to the Department for approval.

(2) Planned a thorough procedure conforming to accepted canons of educational research for evaluating results of the experimental program. These results shall be reported to the Department in accordance with a schedule approved at the time of the agreement.

(3) Agreed to terminate the experimental program upon request by the Department when it is judged by a program approval team to be inadequate for preparation of professional personnel.

§49.16. Approval of induction plans.

(a) Prior to June 1, 1987, each school entity shall submit to the Department for approval a plan for the induction experience for first-year teachers. Newly employed professional personnel with prior school teaching experience may be required by the school entity to participate in an induction program.

(b) The Department will review for approval induction plans submitted by school entities.

(c) The induction plan shall reflect a mentor relationship between the first-year teacher and the induction team.

(d) Criteria for approval of the induction plans will be established by the Secretary in consultation with the Board.

§49.17. Continuing professional development.

(a) A school entity shall submit to the Secretary for approval a continuing professional development plan in accordance with section 1205.1 of the act (24 P.S. §12-1205.1).

(1) A school entity shall develop a continuing professional development plan which shall include options for professional development including, but not limited to, activities such as the following.

(i) Graduate level coursework.
(ii) Obtaining a professionally related master's degree.
(iii) Department-approved in-service courses.
(iv) Curriculum development work.
(v) Attendance at professional conferences.
(vi) Supervised classroom observations of other professional employes.

(2) The continuing professional plan shall define terms used including, but not limited to, the following:

(i) Professionally related graduate level coursework.
(ii) Professionally related master's degree.
(iii) Curriculum development work.
(iv) Professional conferences.
(v) Supervised classroom observations of other professional employes.

(3) The continuing professional development plan shall be developed by teacher representatives chosen by the teachers and administrative representatives chosen by the administrative personnel of the school entity. The plan shall describe the persons who developed the plan and how the persons were selected.

(4) The continuing professional development plan submitted to the Secretary shall be approved by both the development committee and the board of the school entity.

(5) The Secretary will promulgate guidelines which include a process for amending approved continuing professional development plans in accordance with the requirements for initial preparation of the plans.

(6) The continuing professional development plan shall include a section which describes how the professional development needs of the school entity and its professional employes are to be met through implementation of the plan.

(7) Initial continuing professional development plans shall be implemented by a school entity no later than the beginning of the 1988-89 school year.

(b) Reserved.

(c) A commissioned officer who obtains a Letter of Eligibility for Superintendent after June 1, 1987, shall, thereafter, present to the Secretary evidence of satisfactory completion of 6 credit hours of continuing professional development courses every 5 years. This subsection will be satisfied by taking collegiate studies or Department-approved in-service courses or a combination thereof.

(d) Professional personnel who fail to comply with the continuing professional development plan under subsection (a) or commissioned officers who fail to complete the required 6 credit hours under subsection (c) will have their certificates or commissions rendered inactive until the requirement is met.

(e) School districts that employ professional personnel or commissioned officers with inactive certificates or commissions are subject to penalties provided for under Section 25-2518 of the act (24 P.S. § 25-2518).

§49.18. Testing.

(a) The Secretary will institute a testing program for candidates for certification designed to assess their basic skills, general knowledge, professional knowledge, and knowledge of the subjects in which they seek certification.

(b) The Secretary, in consultation with the Board, will establish a passing score for the tests enumerated in subsection (a).

(c) The tests in basic skills, general knowledge, professional knowledge, and subject matter will be given, and passing scores must be achieved, prior to the issuance of a certificate.

(d) A periodic review of the testing program will be made by the Board.

§49.21. (Reserved)

§49.22. (Reserved)

§49.23. (Reserved)

§49.24. (Reserved)

EMERGENCY CERTIFICATES

§49.31. Criteria for eligibility.

The Department may issue an emergency certificate for service in the public schools, at the request of the employing public school entity, to an applicant who is a graduate of a State approved teacher preparing four-year college or university to fill a professional vacancy when a fully qualified and properly certificated applicant is not available. The emergency certificate is issued on the basis of terms and conditions agreed upon between the requesting public school entity and the Department. Annually, the Department will report to the Board the number and nature of emergency certificates issued during that year.

§49.32. Emergency cases.

The Department may approve the issuance of an emergency certificate to a person at the request of a public school entity upon receiving appropriate evidence of exceptional conditions requiring Department resolution of the staffing problem.

§49.33. Expiration.

All emergency certificates shall expire with the termination of any summer school conducted in the summer which follows the date of issuance. Persons holding an emergency certificate shall be used in staffing summer school positions only when regular employes holding the appropriate provisional or permanent certificate are not available.

§49.34. Issuance by chief school administrator.

(a) The chief school administrator of a public school entity is authorized to issue an emergency certificate for day-to-day service as a substitute when the following conditions are met:

(1) The person for whom the certificate is sought holds a valid Pennsylvania Instructional Certificate or a valid Pennsylvania Educational Specialist Certificate.

(2) No appropriately certificated individual is available to fill the substitute position.

(3) The person for whom the certificate is sought consents to an assignment outside the area of his certification.

(b) This certificate shall be valid for 15 cumulative school days of service as a day-to-day substitute. If renewal is necessary, the chief school administrator may request, during the initial 15 day period, issuance of an emergency certificate by the Department pursuant to §§49.31 and 49.32 (relating to criteria for eligibility and emergency cases).

(c) This certificate shall not qualify the holder to serve in a vacant position which must be filled by a temporary professional employe or professional employe or to serve as a substitute for a regularly appointed professional employe or temporary professional employe on an approved leave of absence. Issuance by the Department is used to qualify persons for such service.

(d) Under no conditions may this emergency certificate be issued or used during a work stoppage.

ADMINISTRATIVE COMMISSION

§49.41. Description.

(a) Administrative commissions will be issued by the Department, in the form of a certificate of appointment.

(b) A commission will be issued for a specific term in accordance with Article X of the Public School Code of 1949 (24 P.S. §§10-1001--10-1083.1).

§49.42. Letter of eligibility.

A letter of eligibility for an administrative commission shall be issued in lieu of a certificate by the Department to a candidate who has completed an approved program of preparation in administration and who has been recommended by the preparing institution.

CHANGES IN CERTIFICATION

§49.51. Review of certification.

(a) The Department will review certification regulations annually and will report needed revisions to the Board.

(b) The Board will conduct a major review of certification regulations at ten-year intervals.

§49.52. Development of types/categories of certificates and development of their respective standards.

(a) The Secretary, the Board, and the Professional Standards and Practices Commission will receive requests to initiate a new type/category of certificate. Whenever any of these parties receives such a request it will inform the other two parties.

(b) An investigation into a cogent request for a new type/category of certificate will be conducted by the Department. The Professional Standards and Practices Commission on its own initiative may conduct an investigation.

(c) The Department and the Professional Standards and Practices Commission will review the findings of the investigation regarding the need for a type/category of certificate and present their recommendations to the Board.

(d) If the Board does not disapprove or take any other action on the new type/category of certificate within 120 days of submission, the type/category of certificate will stand approved.

(e) If the proposed type/category is approved by the Board, the Secretary will appoint a committee of professionals to develop standards for preparing professionals in the type/category of certificate. This committee shall include at least two members of the Professional Standards and Practices Commission. Proposed standards shall not stipulate academic degrees, experience, or prerequisite certificates not established by this chapter. After the receipt of the proposed standards, the Secretary and the Professional Standards and Practices Commission will review the proposed standards and make recommendations to the Board. If the Board does not disapprove the new standards within 120 days of submission, the standards will stand approved.

MISCELLANEOUS PROVISIONS

§49.61. Teaching experience for out-of-state students.

The Department may accept satisfactory teaching experience, in lieu of the student teaching requirement, from out-of-state applicants for certification provided that the teaching experience is full time under contract in an approved public or nonpublic school at the elementary or secondary level on a certificate comparable to the Pennsylvania Level I certificate in the area of certification sought.

§49.62. Temporary letters of certification.

The Department may issue a letter of certification at the request of an employing public school entity. The letter of certification may be issued in lieu of a certificate to a competent specialist in any area of knowledge in order to enable the schools of the Commonwealth to use the services of noncertified personnel for supplemental instruction under the supervision of a certificated teacher. The service shall be part-time and shall not exceed 300 clock-hours during a school year. Such persons shall not be considered professional staff.

§49.62a. School program specialist certificate.*

(a) The Department may issue a school program specialist certificate, at the request of the employing public school entity, to an applicant whom the Department verifies as meeting the qualifications and competencies needed to perform the duties and functions of a locally established professional position as set forth by a description of the position approved by the local board of directors.

(b) School program specialist certificates may be issued only for an area of service in which a certificate does not exist. They may be issued only to persons who hold a valid Instructional or Educational Specialist Pennsylvania certificate. Annually, the Department will report to the Board the number and nature of such certificates issued during the year.

(c) School program specialist certificates are valid only for the position described in the approved position description and are not transferable to other school entities.

(d) The provisions of this section and of §49.184 (relating to Intermediate Unit Program Specialist Certificates) are mutually exclusive, neither related nor interchangeable.

*District

§49.63. Applicants educated in foreign countries.

(a) The Department will issue certificates to applicants who have been educated in a foreign country who meet the established Commonwealth standards for the certificates sought. Applicants shall be required to provide official transcripts of studies completed abroad.

(b) The Department may substitute competency examinations for transcript review in a case involving the loss of credentials in a foreign country providing the applicant submits acceptable evidence that he did, in fact, complete a teacher education program.

(c) The Department and its recommending institutions will insure that applicants educated in foreign countries or who are foreign nationals or resident aliens are proficient in speaking, reading, and writing in the English language.

§49.64. (Reserved)

§49.64a. Authority to annul, revoke, or suspend.

(a) Annulment or revocation. In accordance with the authority vested in the Secretary by section 1211 of the Public School Code of 1949, P.L. 30 (24 P.S. §12-1211) and by section 2(j) of the act of May 29, 1931, P.L. 210, as amended (24 P.S. §1225(j)), the Secretary shall annul or revoke the professional certificate or letter of eligibility of any person for cause as enumerated by the above statutes and by §49.64b (relating to causes for annulment, revocation, or suspension), thereby prohibiting such person from teaching or engaging in other professional services in the schools of the Commonwealth until such time as such person is reinstated in accordance with §49.64d(b) (relating to reinstatement of suspended or revoked certificates).

(b) Suspension. In accordance with the authority vested in the Secretary by section 2(j) of the act of May 29, 1931, P.L. 210, as amended (24 P.S. §1225(j)), the Secretary shall suspend the professional certificate or letter of eligibility of any person for cause as enumerated by the above statute or by §49.64b (relating to causes for annulment, revocation, or suspension), for a period of time not to exceed one year, thereby denying such person the right to teach or engage in other professional services in the schools of the Commonwealth for that period of time. When the period of suspension has passed, the certificate or letter of eligibility shall be reinstated in accordance with §49.64d(a) (relating to reinstatement of suspended or revoked certificates).

(c) Procedure. No annulment, revocation, or suspension under subsections (a) and (b) shall be effected without prior notice and hearing in accordance with such reasonable procedures as the Secretary shall prescribe, after review of and comment on the procedures by the Board.

§49.64b. Causes for annulment, revocation, or suspension.

(a) The Secretary shall annul, revoke, or suspend certification for those causes specified by section 1211 of the Public School Code of 1949 (24 P.S. §12-1211) and by section 2(j) of the act of May 29, 1931, P.L. 210 (24 P.S. §1225(j)).

(b) Any professional certificate or letter of eligibility obtained by fraud or mistake shall be considered void "ab initio" and shall be annulled by the Secretary after notice and hearing as provided in §49.64a(c) (relating to authority to annul, revoke, or suspend).

(c) Any alteration of a professional certificate shall render that certificate null and void and reissuance of a new certificate may be refused pending annulment, revocation, or suspension proceedings for any of the causes enumerated in subsection (a).

(d) In addition to any other remedy provided by law, should any person willfully refuse to return a certificate or letter of eligibility recalled for cause by the Secretary, such certificate may be revoked or further suspended for cause as enumerated in subsection (a) after notice and hearing as provided by §49.64a(c) (relating to authority to annul, revoke, or suspend).

(e) Annulment, revocation, or suspension of a professional certificate by another state for one of the causes enumerated in subsection (a) shall be considered probable cause for initiation of annulment, revocation, or suspension proceedings by the Secretary, but no annulment, revocation or suspension shall be effected except after notice and hearing as provided by §49.64a(c) (relating to authority to annul, revoke, or suspend).

§49.64c. All certificates and letters of eligibility subject to suspension or revocation.

The suspension or revocation by the Secretary of a certificate or letter of eligibility of any person shall automatically suspend or revoke any and all certificates or letters of eligibility issued by the Department held by that person except that persons found incompetent in any one area of certification may retain their other certificates or letters of eligibility when the sole basis of the suspension or revocation is insufficient knowledge of subject matter.

§49.64d. Reinstatement of suspended or revoked certificates.

(a) Any certificate or letter of eligibility which has been suspended is automatically reinstated at the end of the suspension period, provided, in the case of certificates, that the suspended certificate did not expire during the period of suspension. If the certificate expired during the period of suspension, the holder of the former certificate may be issued a new one provided he satisfies the requirements for the new certificate by demonstrating competency in the area of the previous certificate.

(b) An individual whose certificate or letter of eligibility has been annulled or revoked may have his case reconsidered annually. The burden of demonstrating his fitness for having his certificate or letter of eligibility reinstated rests with the individual. If the burden is met, the Secretary may place conditions on the issuance of the reinstated certificate or letter of eligibility.

§49.64e. Mandatory reports from schools.

The board of school directors of the employing school district or the board of directors of each employing intermediate unit or the appropriate governing body of the employing nonpublic school shall report to the Secretary within ten days of dismissal the name of any person who has been dismissed and the cause for such dismissal.

§49.64f. Publication of suspensions and revocations.

The Secretary, or his designee, shall notify all chief state school officers of the states and territories of the United States and all chief school administrators and teacher preparing institutions of this Commonwealth of the names and social security numbers of persons whose teaching certificates or commissions are suspended or revoked, the period of suspension or revocation including effective date and the reason for such action.

§49.65. Out-of-state applicants.

(a) The Department will issue the appropriate Commonwealth certificate to applicants who have:

(1) Graduated from a State approved out-of-state college or university whose teacher education requirements are equivalent to those of this Commonwealth.

(2) Completed the preparing institution's teacher education program of the preparing institution.

(3) Received the recommendation of the preparing institution for the subject or area to be taught.

(b) If evaluation by the Department reveals minor deficiencies in the preparation program of the applicant, the Department will prescribe the additional educational requirements to be met in securing Commonwealth certification. The Department may enter into a reciprocal certification agreement with the appropriate authority of another state.

§49.66. Appeal procedure.

Applicants who have been denied certification may appeal for reconsideration of their case to the Department.

§49.67. Master's Degree Equivalency Certificates.

A Master's Degree Equivalency Certificate shall be issued for salary purposes only, subject to the following terms and conditions:

(1) The certificate is issued to persons holding a valid Instructional I, Instructional II, Educational Specialist I, Educational Specialist II certificate or their equivalents, upon the accumulation of 36 hours of graduate level credit. A minimum of 18 academic graduate credits must be earned in the content area of the applicant's primary teaching assignment at a college or university approved to offer graduate work. A maximum of 18 of the credit requirement may be satisfied through inservice programs approved by the Secretary of Education for meeting master's equivalency requirements.

(2) The certificate is also issued to holders of Vocational Instructional I, Vocational Instructional II or their equivalents upon the accumulation of 90 college credits. A minimum of 18 credit hours of the final 30 shall be earned at a State-approved baccalaureate degree granting institution. The remaining 12 may be satisfied, in full or in part, through inservice programs approved by the Secretary of Education for meeting master's equivalency requirements.

(3) A grade of "C" or better is required in college and university courses in which grades are given and a letter of satisfactory completion is required for all inservice courses used toward the attainment of the certificate.

(4) This regulation becomes effective July 1, 1974, except that persons with an Instructional I, Instructional II, Educational Specialist I, Educational Specialist II or their equivalents applying for a Master's Degree Equivalency Certificate before September 1, 1975, need have only 12 academic graduate credits earned in the content area of the applicant's primary teaching assignment.

§49.68. Evaluation of prescribed requirements and standards.

Institutions of higher education within this Commonwealth with approved teacher-education programs are authorized to evaluate, equate, and accredit educational experience and background of candidates for meeting the specific requirements for certification. A candidate may not be recommended for certification until the candidate passes the tests under §49.18 (relating to testing).

§49.69. Deletion of areas from certificates.

(a) Annually, between October 1 and December 31, any holder of a Pennsylvania certificate may request and the Department will grant the removal of any area for which the certificate is endorsed if any of the following conditions are met:

(1) The applicant has not taught in the area for which deletion is sought within the previous ten years.

(2) The applicant is not a regularly employed full time teacher.

(b) In all other cases, an applicant requesting the removal of any area for which the certificate is endorsed must secure the approval of the local school authority. If such approval is granted, then the Department will delete the area from the certificate. If such approval is denied by the local school authority, the applicant shall have the right to appeal to the Department. In any such appeal, the burden is on the applicant to show lack of current subject matter competency.

(c) A moratorium for requesting certification deletions shall exist from January 1 through September 30 of each year to allow schools the opportunity to plan for the assignment of their certified staffs in the ensuing school year.

(d) All action by the Department to delete areas of certification shall be effective on the 30th day of June following receipt of the application to delete.

(e) Any area of certification deleted from a certificate under the provisions of this section shall be restored only after the person becomes eligible by subsequently meeting all laws, regulations, standards, policies, and procedures as are in effect at the time of application for recertification in the area previously deleted.

SUBCHAPTER B. CERTIFICATION OF GRADUATES FROM COMMONWEALTH INSTITUTIONS

GENERAL PROVISIONS

Section 49.71. Basic requirements.
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49.82. Instructional I.
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49.91. Criteria for eligibility.
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49.102. Educational Specialist I.
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49.111. Supervisory I.
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49.121. Administrative I.
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GENERAL PROVISIONS

§49.71. Basic requirements.

Applicants for a certificate shall have completed, in addition to all legal requirements, a program of teacher education approved by the Department and shall have the recommendation of the preparing institution.

§49.72. Categories of certificates and letters of eligibility.

(a) The following basic categories of certificates and letters of eligibility will be issued by the Department:

(1) Letters of Temporary Certification.
(2) Emergency Certificates.
(3) Intern Certificates.
(4) Instructional Certificates.
(5) Educational Specialist Certificates.
(6) Supervisory Certificates.
(7) Administrative Certificates.
(8) School Program Specialist Certificates.
(9) Letters of Eligibility.
(10) Vocational Education Certificates.
(11) Intermediate Unit Program Specialist Certificates.

(b) The Secretary annually will disseminate an approved list of official titles of all certificates and letters of eligibility which the Department has issued during the past fiscal year or proposes to issue in the ensuing year.

§49.73. (Reserved)

INSTRUCTIONAL CERTIFICATES

§49.81. General.

The Department will issue instructional certificates to persons whose primary responsibility is teaching.

§49.82. Instructional I.

(a) The Instructional I Certificate shall be valid for six years of teaching in the area for which it is endorsed. It may be converted to an Instructional II Certificate as provided by §49.83 (relating to Instructional II).

(b) The Instructional I Certificate will be issued to applicants who:

(1) Possess a baccalaureate degree.

(2) Successfully complete a Department-approved teacher certification program.

(3) Present evidence of having passed the Department-prescribed tests under §49.18(a) (relating to testing).

(4) Receive recommendation for certification from a college or university.

§49.83. Instructional II.

The Instructional II Certificate shall be a permanent certificate issued to an applicant who has completed:

(1) A Department-approved induction program.

(2) Three years of satisfactory teaching on an Instructional I Certificate attested to by the chief school administrator of the approved public or nonpublic school entity in which the most recent service of the applicant was performed.

(3) Twenty-four credit hours of collegiate study or inservice courses approved by the Department or both.

§49.84. Collegiate credit acceptable for renewal or conversion of the Instructional I Certificate.

(a) College credit acceptable for renewal of the Instructional I Certificate and conversion to the Instructional II Certificate shall be earned at a State approved baccalaureate degree granting institution.

(b) Credits earned in programs designed to prepare for professional fields such as law, medicine or theology, when relevant to the area of certification, will be considered acceptable for purposes of renewing or converting the Instructional I Certificate.

(c) All credits must be earned subsequent to the conferring of the baccalaureate degree.

§49.85. Limitations.

The grade level limitations of instructional certificates shall be the following:

(1) Early childhood (nursery, kindergarten, grades one to three).

(2) Elementary (kindergarten, grades one to six).

(3) Secondary (grades seven to 12).

(4) Specialized areas (kindergarten to grade 12).

INTERN CERTIFICATES

§49.91. Criteria for eligibility.

(a) The Department may make a one-time issuance of an Intern Certificate for service in approved elementary and secondary schools to applicants who, in addition to meeting the requirements of §49.12 (relating to eligibility), present evidence of having passed the Department prescribed basic skills, general knowledge and subject matter tests; are enrolled in and have completed appropriate professional education courses in an approved intern program, which may include an induction; and are recommended for certificates by the institution holding approval.

(b) The applicant will be issued an Instructional I Certificate upon completion of the approved intern program and the passing of the professional knowledge test.

§49.92. Term of validity.

The intern certificate shall be issued for the period of time necessary for the candidate to complete the approved intern program, but in no case shall this time period exceed 3 years.

EDUCATIONAL SPECIALIST CERTIFICATES

§49.101. General.

The Department will issue educational specialist certificates to persons whose primary responsibility shall be to render professional service other than classroom teaching. The service shall be directly related to the personal welfare of the learner and may include service for the needs of other professional personnel working with learners.

§49.102. Educational Specialist I.

The Education Specialist I Certificate shall be valid for six years of service in each area for which it is endorsed. It may be converted to an Educational Specialist II Certificate in any endorsement area as provided in §49.103 (relating to Educational Specialist II).

§49.103. Educational Specialist II.

(a) The Educational Specialist II Certificate shall be a permanent certificate issued to an applicant who shall have completed three years of satisfactory service on a Level I Educational Specialist Certificate attested to by the chief school administrator of the approved public or nonpublic school entity in which the most recent service of the applicant was performed. In addition, the applicant shall have completed 24 semester credit hours of collegiate study as described in §49.104 (relating to college credit acceptable for renewal or conversion of Educational Specialist I Certificate).

(b) The 24 semester credit hour requirement may be satisfied, in whole or in part, through inservice programs approved by the Department.

§49.104. College credit acceptable for renewal or conversion of Educational Specialist I Certificate.

(a) College credit acceptable for renewal of the Educational Specialist I Certificate and conversion to the Educational Specialist II must be earned at a State approved baccalaureate degree granting institution.

(b) Credits earned in programs designed to prepare for professional fields such as law, medicine, or theology, unless relevant to the area of certification, will not be considered acceptable for purposes of renewing or converting the Educational Specialist I Certificate.

(c) All credit must be earned subsequent to the conferring of the baccalaureate degree.

§49.105. Limitations.

The grade level limitations of educational specialist certificates shall be specified in the standards stated for the respective programs of certification.

SUPERVISORY CERTIFICATES

§49.111. Supervisory I.

(a) The Department will issue Supervisory I Certificates for positions in the schools of the Commonwealth to persons who:

(1) Have completed five years of satisfactory professional experience in the area in which the supervisory certificate is sought.

(2) Have completed an approved graduate program preparing the applicant for the responsibilities of supervising in the specified single program area and of directing the activities of certificated professional employes.

(b) A Supervisory I Certificate for either Curriculum and Instruction or Pupil Personnel Services, valid for three years of provisional service in the specified area, shall be issued to persons who:

(1) Have five years of satisfactory service in the school program area for which the comprehensive certificate is sought.

(2) Have completed an approved graduate program preparing the applicant for the broad area, district-wide supervisory functions specified by the endorsement area of the certificate.

§49.112. Supervisory II.

Supervisory II Certificates shall be permanent certificates issued to applicants who shall have completed three years of satisfactory supervisory experience on a Supervisory I Certificate attested to by the chief school administrator of the approved public or nonpublic school entity in which the most recent service was performed.

ADMINISTRATIVE CERTIFICATES

§49.121. Administrative I.

(a) The Department will issue Administrative I Certificates to persons who have had a minimum of five years of professional school experience, and have completed an approved program of graduate study preparing him to direct, operate, supervise, and administer the organizational and general educational activities of a school. Applicants shall be recommended by the preparing institution in which the graduate program was completed.

(b) Certificates may be issued for any administrative area for which program approval has been granted by the Department.

§49.122. Administrative II.

Administrative II Certificates shall be permanent certificates issued to applicants who have completed three years of satisfactory administrative experience on an Administrative I Certificate attested to by the chief school administrator of the approved public or nonpublic school entity in which the most recent service was performed.

SUBCHAPTER C. VOCATIONAL EDUCATION CERTIFICATION

GENERAL PROVISIONS

Section 49.131. Basic requirements for baccalaureate and nonbaccalaureate programs.
49.132. Types of certificates.
49.133. Levels of certification.

VOCATIONAL INSTRUCTIONAL CERTIFICATES

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49.151. Eligibility and criteria.
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49.153. Vocational emergency certificate.

SUPERVISOR OF VOCATIONAL EDUCATION CERTIFICATE

49.161. Supervisor of Vocational Education I.
49.162. Supervisor of Vocational Education II.
49.163. Vocational Administrative Director I.
49.164. Vocational Administrative Director II.

§49.131. Basic requirements for baccalaureate and nonbaccalaureate programs.

(a) Applicants for a certificate must have completed, in addition to all legal requirements, a program of teacher education approved by the Department and shall have received the recommendation of the preparing institutions.

(b) Preparation in general education, professional education, and specialized studies shall be in accordance with standards established by the Department.

(c) Applicants must present evidence of obtaining passing scores on tests required in §49.18 (relating to testing).

(d) Professional personnel must present evidence of compliance with §49.17 (relating to continuing professional development).

§49.132. Types of certificates.

Four basic types of certificates shall be issued, as follows:

(1) Vocational Instructional Intern.
(2) Vocational Instructional.
(3) Supervisor of Vocational Education.
(4) Vocational Administrative Director.

§49.133. Levels of certification.

Vocational Instructional Certificates, Supervisor of Vocational Education Certificates and Vocational Administrative Director Certificates shall be issued for the following levels of qualifications:

(1) Level I (Provisional)
(2) Level II (Permanent)

VOCATIONAL INSTRUCTIONAL CERTIFICATES

§49.141. General.

(a) The Department will issue Vocational Instructional Certificates to persons whose primary responsibility is teaching occupational skills in State approved vocational education programs in the public schools of the Commonwealth. Such certificates will be valid for teaching in any vocational or technical area for which the holder has registered his occupational competency credential with the Department in the manner prescribed by the Department.

(b) The holder of a vocational teaching certificate may also teach the technical skills and knowledges of his occupation in courses of comparable content provided in secondary school programs which have not been accorded State approval as vocational education programs under conditions set forth in the policies and standards of the Department.

§49.142. Vocational Instructional I.

(a) A single certificate will be issued and titled, "Vocational Instructional Certificate." Individuals qualifying for this certificate shall be authorized to teach in the areas for which they also hold an occupational competency credential. The occupational competency credential will be issued by the Department or an institution of higher education approved by the Secretary. The applicant must have:

(1) A minimum of 2 years wage-earning experience in addition to the learning period required to establish competency in the occupation to be taught.

(2) Successfully completed the occupational competency examination or evaluation of credentials for occupations where examinations do not exist or passed a test of subject matter under §49.18 (relating to testing).

(3) Completed 18 credit hours in an approved program of vocational teacher education.

(4) Presented evidence of having passed the test of basic skills under §49.18 (relating to testing).

(b) The Vocational Instructional I Certificate shall be valid for 7 years during which time the applicant must complete the approved preparation program leading to the Vocational Instructional II Certificate.

§49.143. Vocational Instructional II.

The Vocational Instructional II Certificate shall be a permanent certificate issued to an applicant who has:

(1) Completed 3 years of satisfactory teaching on a Vocational Instructional I Certificate attested to by the chief school administrator of the approved public or nonpublic school entity in which the most recent service of the applicant was performed.

(2) Completed 60 credit hours in an approved program in the appropriate field of vocational education.

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(3) Presented evidence of having passed the test of general knowledge and the test of professional knowledge under §49.18 (relating to testing).

(4) Completed a Department-approved induction program.

VOCATIONAL INTERN CERTIFICATES

§49.151. Eligibility and criteria.

(a) The Department will issue Vocational Intern Certificates for teaching in State approved programs of vocational education in the public schools of this Commonwealth to applicants who have:

(1) Met all eligibility requirements stipulated in §49.12 (relating to eligibility) except for the baccalaureate degree requirement as set forth in paragraph (4) of §49.12.

(2) Provided evidence of passing the test of subject matter under §49.18 (relating to testing) or satisfactory occupational competency by one of the following:

(i) Successfully completing the occupational competency examination of the Department.
(ii) Securing recognition of occupational competency upon the basis of credentials review and adequate work experience beyond the learning period as established by the Department in those competency areas where occupational competency examinations do not exist.
(iii) Receiving State licensure or occupational accreditation by a Board of Examiners recognized by the Commonwealth.
(iv) Receiving certification from another state whose certification criteria are similar to those of this Commonwealth.

(3) Been accepted for enrollment in a State approved vocational teacher preparation program at a Commonwealth college or university.

(4) Been recommended for the certificate by the institution at which they are enrolled or accepted.

(b) The applicant shall be issued a Vocational Instructional I Certificate upon presenting evidence of 2 years wage-earning experience, completion of an approved intern program, and passing the test of basic skills.

§49.152. Term of validity.

The Vocational Instructional Intern Certificate shall be issued for the period of time needed by the applicant to complete 18 semester hours within the approved vocational teacher preparation program, but in no case shall the validity period exceed three years from the date of issuance.

§49.153. Vocational emergency certificate.

(a) The chief school administrator having jurisdiction over any approved Vocational Education program shall be authorized to issue a special emergency certificate on a day-to-day basis to an occupational practitioner when no properly certificated teachers are available. Such a teacher shall function under the supervision of a properly certificated vocational supervisor or administrator. Assignments as described in this section shall be made only in case of an extreme emergency and shall not exceed 15 consecutive school days. This certificate shall be valid for 15 days of substitute service and may be renewed for an additional 15 school days upon the approval of the Secretary.

(b) This certificate shall not qualify the holder to serve as a regularly elected teacher to fill a vacant position or as a long-term substitute. Such positions must be filled by a person holding a valid Vocational Instructional or a State issued Emergency Certificate. Reference should be made to §49.32 (relating to emergency cases).

SUPERVISOR OF VOCATIONAL EDUCATION CERTIFICATE

§49.161. Supervisor of Vocational Education I.

The Department will issue a Supervisor of Vocational Education Certificate to a person who shall have a minimum of three years satisfactory certificated vocational teaching experience and whose primary assignment will be either or both of the following:

(1) Instructional supervision in the fields of vocational education, -- vocational agriculture, vocational business, distributive education, health occupations, vocational home economics, and vocational industrial, or trade and industrial -- in area vocational technical schools and corresponding vocational courses in the public secondary schools of the Commonwealth.

(2) Directing the activities of professional staff teaching in the program areas specified in paragraph (1).

§49.162. Supervisor of Vocational Education II.

The Supervisor of Vocational Education II Certificate shall be a permanent certificate issued to a person who:

(1) Has three years of satisfactory service on a Supervisor of Vocational Education I Certificate; or

(2) Has completed a preparation program and has accumulated three years of satisfactory service on a formerly issued Pennsylvania Supervisory Certificate issued for a single field of vocational education or on a formerly issued Pennsylvania Coordinator of Trade and Industrial or Vocational Education Certificate.

VOCATIONAL ADMINISTRATIVE DIRECTOR CERTIFICATES

§49.163. Vocational Administrative Director I.

(a) Vocational Administrative Director I Certificate shall be valid for six years of service as a Director of Vocational Education. It may be converted to a Vocational Administrative Director II Certificate after three years of satisfactory service as provided in §49.164 (relating to Vocational Administrative Director II).

(b) The Department will issue the Vocational Administrative Director I Certificate to persons who:

(1) Have a minimum of five years successful teaching in vocational education.

(2) Have completed an approved program of graduate study of a comprehensive scope preparing them to direct, operate, supervise, and administer the organizational and educational activities of a vocational technical school or department; applicants shall be recommended by the preparing institution in which the graduate program was completed.

§49.164. Vocational Administrative Director II.

A permanent certificate shall be issued to applicants who have satisfactorily completed three years of administrative experience on a Vocational Administrative Director I Certificate attested to by the chief school administrator of the approved public or nonpublic school entity in which the most recent service was performed.

SUBCHAPTER D. OUT-OF-STATE APPLICANTS

Section 49.171. General requirements.
49.172. Letter of eligibility.

§49.171. General requirements.

(a) Applicants recommended by out-of-state institutions shall submit to the Department official transcripts for all professional preparation and related studies and satisfactory evidence of educational and work experience. Such records will be evaluated by the Department using the established standards applicable to the comparable approved programs at Commonwealth institutions.

(b) The Department will issue the appropriate certificates to persons whose preparation and experience equate to the established standards. If an evaluation by the Department reveals minor deficiencies, the Department will prescribe the additional educational requirements.

(c) Also, the Department may issue the comparable Pennsylvania Level I Certificate to an applicant who, lacking institutional recommendation:

(1) Has been legally certificated by another state at a level comparable to the Level I Pennsylvania certificate sought.

(2) Provides evidence of preparation and experience equating to the established standards for the area of certification sought.

§49.172. Letter of eligibility.

(a) The Department will issue the appropriate letter of eligibility for consideration for appointment as a district superintendent or an assistant district superintendent to an applicant who shall:

(1) Either:

(i) Have completed a Pennsylvania approved graduate level program of educational administrative study minimally approximating two full academic years for the preparation of chief school administrators; or

(ii) Have been prepared through an out-of-state graduate level program equivalent to those approved in this Commonwealth.

(2) Have received the recommendation of the preparing institution for certification as a chief school, district level, administrator or assistant chief school, district level, administrator.

(3) Have provided evidence of six years of teaching or other professionally certificated service in the basic schools three years of which shall have been in supervisory or administrative positions.

(b) Department evaluation will comply with the following:

(1) For persons prepared at colleges and universities, the adequacy of preparation will be determined by the Department.

(2) The qualifying educational service to meet experience requirements out-of-state be determined for all applicants by the Department.

(3) Institutional endorsement of the candidate may be waived by the Department for exceptional reasons such as, but not limited to, nonrecency of graduation, multi-institutional preparation, an institution no longer offering a preparation program for the superintendent.

(c) A commission shall be issued to a person holding an appropriate letter of eligibility upon election as a district superintendent or assistant district superintendent by the respective local board of school directors.

SUBCHAPTER E. COMMISSIONS AND CERTIFICATES FOR INTERMEDIATE UNITS

Section 49.181. (Reserved)
49.182. Letter of eligibility - executive director.

§49.181. (Reserved)

§49.182. Letter of eligibility - executive director.

(a) A letter of eligibility to serve as an intermediate unit executive director will be issued in lieu of a certificate by the Department to a candidate who has obtained or achieved:

(1) An earned doctorate or a master's degree plus 40 hours of graduate study successfully completed at a State approved college or university.

(2) Who has had six years of experience in education work at the elementary, secondary, county office, intermediate unit, state department of education, or State approved college or university level. In three of these six years the applicant shall have served successfully in a management or supervisory capacity.

(b) The appropriateness of this experience and his academic preparation will be determined by the Department.

(c) A commission will be issued to a person holding an appropriate letter of eligibility upon his election as the executive director of an intermediate unit by its respective board of directors.

§49.183. Letter of eligibility - assistant executive director.

(a) A letter of eligibility to serve as an intermediate unit assistant executive director will be issued in lieu of a certificate by the Department to a candidate who has obtained or achieved:

(1) An earned doctorate or a master's degree plus 40 hours of graduate study successfully completed at a State approved college or university.

(2) Who has had six years of experience in education work at the elementary, secondary, county office, intermediate unit, state department of education, or State approved college or university level.

(b) The appropriateness of the applicant's experience and academic preparation will be determined by the Department.

(c) A commission will be issued to a person holding an appropriate letter of eligibility upon his election as an assistant executive director of an intermediate unit by its respective board of directors.

§49.184. Intermediate Unit Program Specialist Certificates.

(a) Certificates for the employment of program specialists will be issued by the Department at the request of an intermediate unit board of directors when the applicant meets requirements established by a job specification proposal which has been approved by the Department; such certificates shall not be transferable for use in another intermediate unit.

(b) Intermediate Unit Program Specialist Certificates may be issued only for an area of professional service in which a certificate does not exist.

(c) The provisions of this section and of §49.62a (relating to school program specialist certificate (district)) are mutually exclusive, neither related nor interchangeable.

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Professional Standards and Practices Commission

Chapter 49
Certification of Professional Personnel

Recommendations to the State Board of Education

Draft 6

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INTRODUCTION

What must Pennsylvania Teachers know and be able to do effectively in order to teach, thus enabling their students to succeed now and in the twenty-first century?

In proposing revisions for Pennsylvania's Chapter 49 Certification of Professional Personnel, the Professional Standards and Practices Commission (PSPC) addresses the above question through its introductory statements and its certification recommendations to the Pennsylvania State Board of Education. The Professional Standards and Practices Commission seeks to identify and recognize the knowledge, skills, and commitments needed by educational personnel to effectively enable all educators to promote, develop, and enhance the student learning outcomes.

The fundamental requirements for proficiency in education clearly apply to all educators: teachers, principals, supervisors, specialists, and superintendents. These fundamental requirements recognize the following knowledge and skills:

- a broad foundation in the liberal arts and science;
- knowledge of the subjects to be taught and the skills to be developed;
- knowledge of the curricular arrangements and materials that organize and embody content;
- knowledge of general and subject-specific methods for teaching and assessing student learning;
- knowledge of students, student learning styles, and human development;
- skills in effectively teaching students from racial, ethnic, and socioeconomic diverse backgrounds; and
- skills, capacities, and disposition to employ such knowledge in the interests of students and their learning.

What makes educators exceptionally effective and successful? Consideration has been given to eight areas in which educators need to be proficient in order to be a successful educator.

CONTENT: In order to teach, teachers must know the content and content pedagogy. Not only must they know content, they must be able to analyze, adapt, sequence, and use it so their students can learn. Secondary teachers need to specialize in complex content areas, develop pedagogical skills, and be familiar with human growth and development. Elementary teachers must have a knowledge in a variety of content areas, human growth and development, as well as pedagogical practice.

INSTRUCTIONAL SKILLS: Effective teachers have a knowledge of instructional skills when they know what is most appropriate to teach at a given time. They can structure information and strategies to be congruent with what is being taught, monitor learning instruction in order to make the necessary adjustments, and make use of psychologically based principles that facilitate learning.

PLANNING: Planning is a skill necessary to be learning outcomes effective. Teachers plan what and when certain learning outcomes will be taught, as well as the manner in which they will instruct their students. As they plan, teachers consider the needs of all their students including their individual learning styles, cultural-ethnic backgrounds, and special needs for motivation.

CLASSROOM MANAGEMENT: Teachers manage learning outcomes, learning materials, and the learning environment. Thus, classroom management means teaching in ways that promote a learning environment and student learning outcomes, as well as encourage students to become independent learners.

USE OF MATERIALS: Teachers need to have a knowledge in the use of materials. Teachers are effective when they use various available and appropriate materials that match the expected student learning outcomes. Teachers are well prepared to consider the interests of their students above all other considerations in making professional choices. Teachers are members of closely working cooperative teams of professional educators. They seek the advice and help of other practicing teachers and draw upon educational research and scholarship on a daily basis.

HUMAN RELATION SKILLS: Teachers need to demonstrate mastery of collaborative human relation skills when interacting with students, peers, parents, community members, and other educational personnel. Good human relation skills promote a caring, consistent, and fair learning environment, resulting in the expected student learning outcomes. To be collaborative, teachers recognize that no professional decision is made in isolation from their clients: the students, their parents, and the community.

LEVELS OF HUMAN GROWTH AND DEVELOPMENT: Teachers, both elementary and secondary, must have an understanding of the levels of human growth and development. Teachers choose appropriate strategies for instruction and classroom management based upon the developmental levels of their students.

STYLES OF HUMAN LEARNING: Elementary and secondary teachers must have a knowledge of their students' learning styles. Teachers choose appropriate strategies and materials for instruction as well as management based upon the students' learning styles.

Learning styles consist in the capacity to learn, the motivation to learn and self concept.

All of the above aspects of teaching are necessary and important to consider when developing appropriate certification requirements and program approval standards. They show a way to think about teaching, allow for flexibility, and enhance efficiency of instruction.

The **National Board for Professional Teaching Standards** has developed five core propositions that seek to identify and recognize those effective educators who are able to enhance student learning and demonstrate high levels of knowledge, skills, and commitment. The five core propositions are the following:

1. **Teachers Are Committed to Students and Their Learning.**

    * Teachers recognize individual differences in their student and adjust their practices according.
    * Teachers have an understanding of how students develop and learn.
    * Teachers treat students equitably.
    * Teachers' missions extend beyond developing the cognitive capacity of their students. Teachers are concerned with their students' self-concept, with their motivation, with the effects of learning on peer relationships, and with the development of character, aspiration, and civic virtues.

2. **Teachers know the subjects they teach and how to teach those subjects to students.**

    * Teachers appreciate how knowledge in their subjects is created, organized, and linked to other disciplines.
    * Teachers command specialized knowledge of how to convey a subject to students.
    * Teachers generate multiple paths to knowledge. Proficient teachers help students learn to pose problems and work through alternative solutions, in addition to teaching them answers that others have found to similar problems.

3. **Teachers are responsible for managing and monitoring student learning.**

    * Teachers call on multiple methods to meet their goals, i.e. dialogue, lecture, cooperative learning groups, etc. Because students vary in learning styles and because settings afford differing learning opportunities, accomplished teachers know when and how to alter the social and physical organizational structure of the learning environment.

- Teachers orchestrate learning in group settings. Teachers know how to manage groups of students. They help students act and interact, adopt appropriate roles and responsibilities for their learning and that of their peers, and work independently without the constant supervision by a teacher.
- Teachers place a premium on student engagement. Teachers understand ways in which students can be motivated and have strategies to monitor student engagement. Teachers build bridges between what students know and can do and what they are capable of learning.
- Teachers regularly assess student progress.
- Teachers know about planning instruction: identifying and elaborating educational objectives, developing activities to help them meet their goals, and drawing upon resources that will serve their purposes.

4. Teachers think systematically about their practice and learn from their experience.

- Teachers are continually making difficult choices that test their judgments. Teachers are called upon to employ their professional knowledge of what makes for sound practice, with the interest of their students given paramount consideration.
- Teachers seek the advice of others and draw on education research and scholarship to improve their practice.

5. Teachers are members of learning communities.

- Teachers contribute to school effectiveness by collaborating with other professionals.
- Teachers work collaboratively with parents.
- Teachers take advantage of community resources.

In attempting to formulate the certification requirements and standards for educators, consideration needs to be given to certain questions. The questions that arise when one seeks the answer to the QUESTION: **What must Pennsylvania Educators know and be able to do in order to teach, manage, and lead effectively, thus enabling their students to succeed now and in the twenty-first century are:**

- What is most important to excellence in teaching? What is peripheral?
- What is necessary for all teachers? What is optional?

In presenting the following recommendations to the Pennsylvania State Board of Education, the Professional Standards and Practices

mmission (PSPC) recognizes and supports the State Board of
ucation's agenda for the 1990's and the next century regarding
udent needs, and hence teacher needs. The State Board of
ucations's review of its regulations on curriculum (Chapter 5),
cational education (Chapter 6), and student assessment (Chapter
, has guided the PSPC's thoughts on the certification of
ofessional personnel.

he proposed changes in the above-mentioned state regulations
acilitate a restructuring of public education so that all
rofessional personnel involved focus their attention on
stablishing and achieving student learning outcomes. The
ollowing recommendations promote the achievement of student
learning by designing appropriate programs which would require
significant changes in the way educators are prepared for their
work. In an outcomes-based educational environment recommendations
for the certification of professional personnel encourage:

- * the recognition of the knowledge, skills and commitments needed by all educators to promote, develop, and enhance student learning;
- * flexibility in educational delivery to achieve student learning;
- * the recognition of the unique developmental stages and learning needs of early childhood, elementary, middle level, and young adult education students by promoting the appropriate developmental level programs; and
- * the teaching of appropriate developmental level curricula which promote vertical and horizontal curriculum integration, including sequential development of knowledge and skills, interdisciplinary teaching, and integration of vocational academic programs.

Scope Note: This position paper of the PSPC includes detail only on certificates for classroom instruction, school administration and school district wide supervision. The Commission recognizes that there needs to be a number of other certificates including but not limited to educational technology, school nurse, school psychologist, and school librarian. The Commission will work in the future with the Department of Education, associations of educational professionals and the learned societies to develop standards for those certificates.

Instructional Certificates

RECOMMENDATIONS:

Requirements:

All basic education teachers would receive a single certification. The single certification would accomplish all basic education requirements and would include knowledge of the typical as well as the exceptional child for all basic education teachers. The program for the basic education teacher should include experiences with the typical, at-risk, under-challenged, and exceptional students. The basic education teacher would be able to instruct regular education students as well as the mildly disabled students. The basic education teacher would be the teachers of the mildly disabled such as the mildly Learning Disabled (LD), mildly Mentally Retarded (EMR), and mildly Seriously Emotionally Disturbed (SED).

Scope:

The single certification would reflect a broad area of study with endorsements for highly specific/technical areas. The areas of broad certification would be as follows:

1.	Early Childhood Education	ages 0 - 8	preschool, kindergarten, grades 1 - 4
2.	Elementary Education	ages 5 - 12	kindergarten, grades 1 - 6
3.	Middle Level Education * Math and Science * Humanities * Non English	ages 11 - 14	grades 6 - 9
4.	Young Adult Education * Math and Science * Humanities * Non English	ages 14 - 18	grades 9 - 12
5.	Early Childhood through Young Adult Education: art, music, library, physical education/health, foreign language, and limited English Proficiency	ages 0 - 21	preschool, kindergarten, grades 1 - 12

The program for the single certification would include preparation in developmental studies, pedagogical studies, and content studies.

This document introduces the term endorsement. Endorsements are defined additions to the general teaching certificate which enable the teacher to teach a highly specialized kind of school subject or work with students with very special needs. Endorsements would be additions to the single certification. They would come about as a result of focused graduate programs which meet defined outcomes.

Instructional I Certificates:

Instructional I Certificates for Early Childhood and Elementary education will be awarded by teacher preparation institutions in accordance with the above outcomes.

Instructional I Certificates for Middle and Young Adult Level education will be awarded upon the recommendation of the teacher preparation institutions in accordance with the above outcomes and shall include at least one specialty.

Instructional II Certificates:

Instructional II Certificates will be awarded upon the completion of the following:

1. One year of induction
2. 24 semester hours of work beyond the Bachelor's Degree
3. Three years of successful teaching
4. One additional endorsement (for a total of at least one endorsement for Early Childhood and Elementary education and at least two for Middle and Young Adult Level education).

The Instructional II Certificates would be a renewable certificate reviewed every six years at the local school level by a committee of professional peers. An individual professional development plan would be submitted for peer review. The plan would include collegiate or inservice study or the completion of a master's degree. In any case, the plan would outline a coherent program of professional growth which would continue throughout one's career.

Special Education:

In special education, endorsements would be used for the teachers of the more moderately/severely disabled.

Special education endorsements would be in the following areas, but not limited to:

1. Gifted Education	preschool, K - 12
2. Moderate Learning Disabilities (LD; EMR; SED)	preschool, K - 12
3. Severe Learning Disabilities (Multiple Disabilities; LD; EMR; TMR; S&PMR; SED)	preschool, K - 12
4. Visually Impaired	preschool, K - 12
5. Hearing Impaired	preschool, K - 12
6. Speech & Language	preschool, K - 12
7. Physically Disabled	preschool, K - 12

Early Childhood and Elementary Education:

Early Childhood and Elementary education endorsements would be in the following areas, but not limited to:

1. Elementary Supervisor
2. Mathematics and Science
3. Language Arts
4. Humanities
5. Computer Specialists
6. Bilingual
7. Lead Teacher

If a school district chooses to use specialists to teach and/or coordinate Mathematics, Science, Language Arts, or Humanities those specialists must have the appropriate endorsements.

Within each of the broad areas of certification, knowledge and skill requirements must be accommodated. The Early Childhood Education standards would focus on the special issues of preschool and the elementary grades. The Elementary Education standards would recognize the fact that during this developmental span the students would make a transition to a more formal academic environment.

Middle Level Education:

In the Middle Level Education, the subject matter is qualitatively different from that taught to younger students. Therefore, the expectations of the teachers are different. Additionally, there is a greater specialization of teachers. The developmental component of the Middle Level Education standards would include understanding of pre-adolescent and adolescent cognitive and emotional development and of the middle school institutional and organizational issues.

Examples of Middle Level Education Certificates and Endorsements follow:

1. **Mathematics and Sciences Certificate:**
   - Middle Level Preparation
   - Preparation to teach Algebra 1 and 2, Geometry, Life Sciences, General Science, and Physical Sciences.

   Endorsements:
   - Earth and Space Sciences
   - Analysis (Trigonometry, Analytic Geometry, and Theory of Equations)
   - Finite Mathematics (Probability, Statistics, and Matrix Algebra)
   - Computer Applications
   - Calculus
   - Physics
   - Chemistry
   - Biology
   - Economics
   - Philosophy
   - Young Adult Education
   - Lead Teacher
   - Supervisor

Instructional
Network
~~[illegible]~~ Specialist

2. **Humanities Certificate:**
   - Middle Level Preparation
   - Preparation to teach Developmental Reading, Developmental Writing, English/Language/Literature, General Western Culture, and Development of Government.

   Endorsements:
   - Reading
   - Creative Writing/Expository Writing
   - Political Science
   - Economics
   - Psychology
   - Philosophy
   - British Literature, History and Culture
   - Literature, History, and Culture of the United States
   - African Literature, History, and Culture
   - Hispanic Literature, History, and Culture
   - European Literature, History and Culture
   - Asian Literature, History and Culture

- Young Adult Education
- Lead Teacher
- Supervisor

3. **Foreign/Second Language Certificate:**
   - Middle Level Preparation
   - Preparation to teach Primary Language

   Endorsements:
   - Primary/First Language Literature, History, and Culture
   - Secondary/Second Language
   - Secondary/Second Language Literature, History, and Culture
   - Young Adult Education
   - Lead Teacher
   - Supervisor

Young Adult Education:

With Young Adult Education, the standards in both content and pedagogy focus upon the older students ready for more advanced material. The developmental component would focus on knowledge of the intellectual and social development of such students and the organization and sociology of junior and senior high schools. In content, the teachers would be expected to have a command of the subject matter and the content specific pedagogy of their particular specialty, as well as content from related subject matter areas. Secondary teachers would have a broad area certification with at least one area of specialization.

Examples of Young Adult Education Certificates and Endorsements follow:

1. **Mathematics and Sciences Certificate:**
   - Young Adult Level Preparation
   - Preparation to teach Algebra 1 and 2, Geometry, Life Sciences, General Science, and Physical Sciences.

   Endorsements:
   - Earth and Space Sciences
   - Analysis (Trigonometry, Analytic Geometry, and Theory of Equations)
   - Finite Mathematics (Probability, Statistics, and Matrix Algebra)
   - Calculus
   - Computer Applications
   - Physics
   - Chemistry
   - Biology
   - Economics
   - Philosophy

* Middle Level Education
* Lead Teacher
* Supervisor

2. **Humanities Certificate:**
   * Young Adult Level Preparation
   * Preparation to teach Developmental Reading, Developmental Writing, English/Language/Literature, General Western Culture, and Development of Government.

   Endorsements:
   * Reading
   * Creative Writing/Expository Writing
   * Political Science
   * Economics
   * Psychology
   * Philosophy
   * British Literature, History and Culture
   * Literature, History, and Culture of the United States
   * African Literature, History, and Culture
   * Hispanic Literature, History, and Culture
   * European Literature, History and Culture
   * Asian Literature, History and Culture
   * Middle level Education
   * Lead Teacher
   * Supervisor

3. **Non English Language Certificate:**
   * Young Adult Level Preparation
   * Primary Language

   Endorsements:

   * Primary Language Literature, History, and Culture
   * Secondary Language
   * Secondary Language Literature, History, and Culture
   * Middle Level Education
   * Lead Teacher
   * Supervisor

Early Childhood through Young Adulthood Education:

The Early Childhood through Young Adulthood Education (Grades K-12) would be recommended for those teachers who instruct across the educational spectrum. This would include teachers who specialize in art, music, library, physical education/health, foreign languages, and limited English proficient students. The developmental component would be composed of an amalgam of the material embraced by the developmental clusters. The breadth component would focus on the subject matter content and the pedagogy of the specialty (i.e. art, music, physical education, foreign language, and the needs of limited English proficient students).

SUPPORTING STATEMENTS:

1. There should be a single general certification (broad areas) with endorsements in specific technical areas.

2. All teachers should be able to teach all students within the scope of the certificate.

3. The single certification raises the expected clinical ability of teachers.

4. Knowledge base includes knowledge integration (i.e. when you teach science, you are also teaching math).

5. Broad areas cross the curriculum: reading, writing, and so forth.

6. Trends in education and the demand of society require an interdisciplinary and a more integrated approach than what the current certificated structure provides.

7. By overlapping the Early Childhood Education, Elementary Education, Middle Level Education, and Young Adult Education Endorsements, the following advantages result:

   * Many people would be trained at the transition stages.
   * It does not narrow the teachers' marketability and does not limit the academic areas in which they can teach.
   * It complements the flexibility of the school structure as permitted by Chapter 5.
   * It gives administrators flexibility in teaching assignments/placements.

8. Endorsements could be a means of giving cohesiveness to the 24 hour requirements.

9. Research does not support differentiating characteristics of mild LD, EMR, and SED.

10. Research related to teaching methodology has consistently indicated that there are no differences among mildly disabled students in terms of their instructional needs or in the effectiveness of various techniques and procedures.

11. Teachers who use direct instruction, contingent feedback, and continuous evaluation are equally effective with all mildly handicapped children regardless of their category.

12. Practice of teacher certification is based upon the assumption that professionals must possess certain skills and competencies to be effective with students: behavior management, student assessment, curricula modification, consultative skills, ability to work with parents, and knowledge of school laws.

13. States are moving more toward generic certification. Some states are moving away from K-12 toward developmental levels, especially in the area of early childhood.

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Supervisory Endorsements

Requirements:

Applicants for supervisory endorsements must have an Instructional II Certificate and the recommendation of an approved higher education institution. The recommending institution will certify the applicant's acquisition of supervisory skills consistent with a program developed by the institution.

Scope:

Persons holding supervisory endorsements will be able to provide district level supervision in curriculum development and coordination, as well as, observe and evaluate teachers.

Program:

Persons completing a program for a supervisory endorsement will demonstrate capabilities in leadership, curriculum development, adult learning, observation, and evaluation.

RECOMMENDATIONS:

In school districts which see a need for district wide evaluation and coordination of teaching and curriculum development, current subject area supervisory certificates would be replaced by a supervisory endorsement to the Instructional II certificate. Supervisory endorsements should be offered in broad but related areas such as: Mathematics and Sciences, Humanities, Non English Language, and Arts.

Generally, holders of Supervisory subject area endorsements would be authorized to evaluate teachers, as well as coordinate district wide subject area activities and subject area curriculum development.

SUPPORTING STATEMENTS:

1. Broadening the scope of supervisory endorsements as compared to current subject area certificates would allow districts flexibility in assigning district wide supervisory, coordination, and curriculum development responsibilities.

2. Broadening the scope of supervisory endorsements as compared to current subject area certificates would be consistent with the broader instructional areas.

Lead Teacher Endorsements

Requirements:

Applicants for lead teacher endorsements must have an Instructional II Certificate and the recommendation of an approved higher education institution. The recommending institution will certify the applicant's acquisition of leadership skills consistent with a program developed by the institution.

Scope:

Persons holding Lead Teacher Endorsements will be able to provide building level leadership in curriculum development and coordination, mentoring, and peer coaching, as well as, serve as grade level or department chair.

RECOMMENDATIONS:

The mentoring skills needed by the lead teachers would be an endorsement to the Instructional II Certificate. The lead teacher would then be recognized as a specialist and peer mentor having been formally trained.

Generally, holders of Lead Teacher endorsements would be authorized to mentor, coordinate team, grade level, and department activities, as well as coordinate development of curriculum and teaching strategies within a school building.

Program:

Persons completing a program for Lead Teacher endorsement will demonstrate capabilities in leadership, curriculum development, and adult learning.

SUPPORTING STATEMENTS:

1. The role of the Lead Teacher at the building level would facilitate site-based management initiatives in the restructuring of schools.

2. Peer mentoring at the building should be conducted primarily for the purpose of improving teacher performance in order to enhance the quality of instruction offered to the students. It should be designed to be a helpful and collegial process.

3. In such a collegial process, teachers and lead teachers would be seen as professionals with the autonomy that their titles assume. Teachers would be viewed as professionals who are capable of diagnosing the learning needs of students and are able to make judgments about appropriate learning strategies and tactics.

Administrative Certificates

Principals

RECOMMENDATIONS:

The principal's certificate should be all encompassing, K-12 (This shall include the preschool programs that are within the auspices of the local school districts). Issuance of the Administrative I Certificate should be based upon the person having an Instructional II Certificate and having completed an approved program of graduate study preparing him/her to direct, operate, supervise, and administer the organizational and general activities of an elementary, middle, or secondary school.

Program:

The program shall have well-defined criteria for admission. The candidate shall possess a valid teacher's certificate (Instructional II). The institution of higher learning will have assessment procedures which will determine the potential success and needs of the applicant. The assessment program shall include but not be limited to decisiveness, educational values judgement, leadership, oral and written communications, organizational ability, personal motivation, problem analysis, range of interest, sensitivity, and stress tolerance.

The program shall assure that a candidate for the principal's certificate shall demonstrate competencies in:

A. Instructional Leadership
    1. Effective Schools Research
    2. Curriculum Development
    3. Teaching/Learning Theories
    4. Human Development
    5. Tests/Measurements

B. Supervision
    1. Classroom Observation
    2. Evaluation Techniques
    3. Instructional Strategies
    4. Conference Techniques
    5. Counseling Techniques

C. Management Skills
    1. Organization Theory
    2. Staff Development

3. Scheduling
4. Discipline Administration
5. Building Finances
6. Management of Resources
7. School Law
8. Co/extra Curricular Activities
9. Administration of Contracts
10. Stress Management
11. Computer Literacy
12. Utilization of Staff
13. Planning Techniques

D. Communication
   1. Standard American English-written
   2. Standard American English-spoken
   3. Active Listening
   4. Sensitivity

E. Intergroup Relations
   1. Conflict Resolution
   2. Group Dynamics
   3. School/Community Relations
   4. Staff Involvement
   5. Self Knowledge
   6. Political Awareness
   7. Public Relations

F. Educational Values
   1. Philosophy of Education
   2. Ethics
   3. Professional Organizations

The competencies shall serve as a foundation for other specialized experiences. These may include:
* Decision-making opportunities through course work
* Internships or other on-site programs established with the cooperation of local schools to provide opportunities for working in school settings with practicing principals
* Other individualized programs designed to meet the needs of candidates

Progress in the following areas will be monitored using on-going evaluation techniques during course work and practicum:
1. Instructional Leadership
2. Supervision
3. Management Skills
4. Communications
5. Inter-group Relations
6. Educational Values

A final evaluation of the candidate's competency will be completed before issuance of the principal's certificate. This evaluation will be related to the assessment procedures which were administered at the time of admission.

Assessment Process for Administrative Certificates:

Candidates for Administrative Certificates should be assessed.

The Pennsylvania Associations of Elementary and Secondary School Principals have proposed the following skills be assessed for candidates of the principal's certification:

PROBLEM ANALYSIS: Ability to seek out relevant data and analyze complex information to determine the important elements of a problem situation; searching for information with a purpose.

JUDGMENT: Ability to reach logical conclusions and make high quality decisions based upon available information; skill in identifying educational needs and setting priorities; ability to evaluate critically written communications.

ORGANIZATIONAL ABILITY: Ability to plan, schedule, and control the work of others; skill in using resources in an optimal fashion; ability to deal with volume of paperwork and heavy demands on one's time.

DECISIVENESS: Ability to recognize when a decision is required (disregarding the quality of the decision) and to act quickly.

LEADERSHIP: Ability to get others involved in solving problems; ability to recognize when a group requires direction, to interact with a group effectively, and to guide them to the assignment of a task.

SENSITIVITY: Ability to perceive the needs, concerns, and personal problems of others; skill in resolving conflicts; tact in dealing with persons from different backgrounds; ability to deal effectively with people concerning emotional issues; knowing what information to communicate and to whom.

STRESS TOLERANCE: Ability to perform under pressure and during opposition; ability to think on one's feet.

ORAL COMMUNICATION: Ability to make a clear oral presentation of facts or ideas.

WRITTEN COMMUNICATION: Ability to express ideas clearly in writing; to write appropriately for different audiences -- students, teachers, parents, et. al.

RANGE OF INTEREST: Competence to discuss a variety of subjects -- educational, political, current events, economic, etc.; desire to actively participate in events.

PERSONAL MOTIVATION: Need to achieve in all activities attempted; evidence that work is important to personal satisfaction; ability to be self-policing.

EDUCATIONAL VALUES: Possession of a well-reasoned educational philosophy; receptiveness to new ideas and change.

SUPPORTING STATEMENTS:

1. The PSPC is recommending an all encompassing K-12 (This shall include the preschool programs that are within the auspices of the local school districts) Administrative Certificate that would develop the leadership and managerial skills of school administrators. A global, generic administrative program would be able to cover a wide range of topics, from effective management techniques to training for staff evaluation.

2. This Administrative Program would be able to focus on training in program evaluation, curriculum development, school/community communications, teacher inservice education, and time management. More attention would be given in the preparation program to the development of human relations skills and personality characteristics.

3. Currently, in most administrative preparation programs as few as two courses reflect the difference between the Elementary Principal's and Secondary Principal's Certification Programs.

4. The use of the all encompassing administrative certificate provides for mobility and employability of principals.

Superintendent - Letter of Eligibility

Program:

All candidates must participate in extensive screenings for admission. This screening process includes assessment, center simulations, interviews, writing samples, and oral presentations

The program of instruction should include the doctoral degree as a prerequisite to state certification. The program of instruction should be presented by resident faculty who have demonstrated success in teaching, clinical activities, and knowledge production in the field of school leadership.

Studies should be presented in a manner that ensures clinical residency with full-time experienced chief school officers.

A common core of knowledge should be grounded in best practice as well as theory and should include:

- Societal and cultural influences on schooling;
- Teaching and learning processes, school improvement and restructuring;
- Organizational theory and practice;
- Methodology of organizational studies and policy analysis;
- Leadership and management processes and functions;
- Policy studies and politics of education; and
- Moral and ethical dimensions of schooling.

The core of this program must ensure that participants develop significant and deep understandings of societal and cultural factors that influence schooling and the public's willingness to support schooling as well as the ability to participate in schooling by at-risk populations. The preparation must ensure that the administration never loses sight of the critical issues of teaching and learning that occur in the school. Administrative preparation needs to be grounded in the theoretical and empirical literature of organizational life in schools. Research and evaluation skills need to emphasize outcomes based learning.

The program should include long-term formal relationships between school districts and the preparation institution to provide opportunities for appropriate partnership-based internship program.

The quality of the leadership program rests on three factors:

1) selection of highly talented persons from a pool balanced b race and gender,
2) rigorous study of organizational, pedagogical, and leadersh related disciplines, and
3) carefully designed problem solving based internship studies in collaborative environments.

The exit criteria for the program should be outcomes based and should address leadership as well as educationally related activities. Graduates of these programs should be talente practitioners as well as contributors to a growing knowledge bas of school leadership.

RECCMMENDATIONS:

The letter of eligibility should be based upon a person having demonstrated leadership skills, having possessed an Instructiona II Certificate as well as an Administrative Certificate, and having completed an approved graduate level program of educational administrative study for the preparation of chief schoo administrator. The letter of eligibility would entitle a person t be considered for an appointment as a district superintendent, assistant district superintendent, a supervisor, an intermediat unit director, and a vocational director. A person holding letter of eligibility would be able to supervise such areas as curriculum and instruction, pupil personnel services, special education, and vocational education. Supervisors should b appropriately assigned according to work experience as well a formal preparation. A supervisor's formal preparation and experience should be documented as the Pennsylvania Department o Education currently requires for the Program Specialis Certificate.

Transition:

Persons having a subject area supervisory certificate before the date of implementation of the revised Chapter 49 Regulations ma supervise the related broad subject areas (i.e. a curren mathematics or science supervisor could supervise in mathematics and science).

Persons having a supervisory certificate in either Curriculum and Instruction or Pupil Personnel Services before the date of implementation of the revised Chapter 49 Regulations may supervis in either area.

Persons having a letter of eligibility for superintendent o assistant superintendent before the date of implementation of th revised Chapter 49 Regulations are qualified to serve as a

Supervisor of Curriculum and Instruction, Supervisor of Pupil Personnel Services (which shall include supervision of special education), Elementary School Principal, approved Middle School Principal, or Secondary School Principal.

Persons having an letter eligibility for superintendent or assistant superintendent before the date of implementation of the revised Chapter 49 Regulations are qualified to serve as a Supervisor of Pupil Personnel Services which shall include supervision of special education.

SUPPORTING STATEMENTS:

1. Supervisory areas may be handled by the letter of eligibility. As previously discussed, the Professional Standards and Practices Commission recommends that the supervisory certificate be eliminated and encourages the development of an endorsement to the Instructional II as a lead teacher or supervisor.

2. Formal evaluation is an administrative task that involves making a performance judgment about the effectiveness and quality of teaching.

3. Newer thought on management of the work place asks all workers to take ownership of quality issues and to participate in making and applying the rules rather than creating a class of middle managers who monitor externally imposed rules. Eliminating the supervisory certificates and incorporating the formal supervisory roles within the letter of eligibility does discourage the creating of a class of middle managers who monitor externally imposed rules.

4. If school districts today are going to hire a supervisor of science or math or special education, curriculum directors, pupil personnel services directors, and/or assistant superintendents, they would be able to competitively select candidates who hold appropriate degrees and certifications. Why should we try to influence this type of employment decision with a multiple list of specialized certificates? The letter of eligibility would support and provide for administrative mobility and employability of assistant district superintendents, broad area supervisors, intermediate unit directors, vocational directors, and so forth.

5. Another concern is that the specific, restrictive supervisory certificates could hinder career development when professionals seek to eventually become superintendents, as many do. The supervisory certificate seems to be a detour in a reasonable career development path.

Vocational Education

RECOMMENDATIONS:

Certification of vocational education professionals should be at the baccalaureate level. Vocational education professionals' programs should include preparation in content, pedagogy, human growth and development and work experience.

Preparation programs for vocational teachers should not be occupation specific. Those programs should prepare teachers to meet the ever changing needs of agriculture, business and industry, and community. Each of the certificate areas should include training in applied technology pertinent to the area.

Vocational School Administrators certification programs for vocational education supervisors and director should be incorporated within the Letter of Eligibility.

Vocational Instructional Certificates

Certification Area

1. Agriculture
   * Young Adult Level Preparation
   * Preparation to teach plant and soil science, animal science, agricultural business management, marketing and entrepreneurship, and agricultural mechanics and technology.

   Endorsements:
   * Agricultural mechanics
   * Agricultural production
   * Agricultural resources
   * Agricultural service and supplies
   * Agricultural products/processing
   * Forestry/lumbering
   * Horticulture
   * Middle Level Education (within this certification area)
   * Lead Teacher
   * Supervisor

2. Business
   * Young Adult Level Preparation
   * Preparation to teach business English, business law, business mathematics, basic accounting, business organization and management, business economics, marketing, consumer economics and personal financial management, data processing, communications, and microcomputer applications.

   Endorsements:
   * Business Accounting and Mathematics
   * Business Economics
   * Business Law
   * Career Education
   * Computer Applications and Programming
   * Consumer Economics
   * Marketing
   * Office Technologies
   * Middle Level Education (within this certification area)
   * Lead Teacher
   * Supervisor

3. Home Economics
   * Young Adult Level Preparation
   * Preparation to teach basic courses in food and nutrition, clothing and textiles, domestic skills, consumer education, personal and family resource management, child development and parenting, and career education.

   Endorsements:
   * Career Education
   * Child Care
   * Consumer Economics
   * Nutrition
   * Textiles
   * Early Childhood Education (within this certification area)
   * Elementary Education (within this certification area)
   * Middle Level Education (within this certification area)
   * Lead Teacher
   * Supervisor

4. Industrial Arts and Technology
   * Young Adult Level Preparation
   * Preparation to teach the clustered content areas of industrial materials, visual communications, and power technology.
   * Preparation to teach special needs students within the clustered areas.
   * Preparation to teach middle level aged students within the clustered areas.

Clustered Areas:

Industrial Materials
Ceramics
Construction Crafts
Manufacturing
Metalworking
Plastics/Synthetics
Woodworking

Visual Communications
Drafting/Design
Graphic Arts

Power Technology
Alternate energy systems
Electricity
Electronics
Hydraulics/Pneumatics
Mechanical systems
Power mechanics
Transportation
Robotics

Endorsements:
- Career Education
- Consumer Economics
- Drafting/Design
- Graphic Arts
- Industrial Materials
- Power Technology
- Specific Trade/Industrial Skills
  (The Department may issue endorsements for specific occupational areas much like those issued for Vocational Intern Certificates. Qualifications for endorsement should include collegiate credit, competency testing, certification by a Board of Examiners recognized by the Commonwealth, work experience in the area for which th endorsement is to be issued, a combination of all or an of these.)
- Middle Level Education (within this certification area)
- Lead Teacher
- Supervisor

Vocational Intern Certificates

Trade and Industry courses taught in the Commonwealth's vocational education schools are occupation specific. Vocational educatio schools have traditionally relied on skilled professionals withi the occupations with minimal teaching credentials to teach thes courses.

In the past, skills learned on the job may have been the mos important credential for the T&I teacher, but no longer. Today, teachers inservice to the Commonwealth's vocational educatio schools must be prepared to meet the needs of students entering workplace that changes every seven to ten years, teach advance science and math principles required by an expanded technology base, prepare students for transition to two-year post-graduatio technical schools, and meet increased graduation standards.

The Vocational Intern Certificate is designed to provide competent instructors for traditional courses in trade and industry needed by vocational education schools and ensure that those instructors attain a high level of pedagogical competency within an acceptable period of time.

Requirements:

*Prior to service candidates for Vocational Intern Certificates must complete nine (9) credit hours. Course work will include classroom management, instructional technique, and school law. Course work may be provided by an approved teacher preparation institution or a vocational intern induction program provided by a school district or intermediate unit which is approved by the Department.

*The candidate shall show competency in the occupational area for which the certificate is granted by:

1. Presenting evidence of at least two (2) years of experience in the occupational area for which the applicant seeks an intern certificate.
2. Successfully completing the occupational competency examination of the Department.
3. Securing recognition of occupational competency upon the basis of credentials review and adequate work experience as established by the Department in those competency areas where occupational competency examinations do not exist.
4. Receiving State licensor or occupational accreditation by a Board of Examiners recognized by the Commonwealth. Receiving certification from another state whose certification criteria are similar to those of this Commonwealth.

*The candidate must be accepted for enrollment in a State approved vocational teacher preparation program at a Commonwealth college or university.

*The Vocational Intern Certificate shall be issued for the period of time needed by the applicant to acquire an Instructional I Certificate within one of the four Vocational Education areas through an approved vocational teacher preparation program.

*In no case shall the validity period exceed six years from the date of issuance, unless an extension is requested by the teacher preparation institution o behalf of the intern. The only valid request for an extension is an institutional requirement of course work which exceeds the 72 credit hours minimum.

*The Vocational Intern Certificate must be validated each year. Validations shall be dependent upon the successful completion of a minimum of 12 credit hours through the approved vocational teacher preparation program in which the intern is enrolled and satisfactory evaluation certified by the superintendent of the vocational school in which the intern is employed or a qualified supervisor.

*The 12 hour minimum requirement may be attained through collegiate or inservice credit. If inservice credits are used, they should be recognized by the teacher preparation institution as part of the program designed for the individual to achieve an Instruction I certificate.

*Course requirements for attaining Instruction I certification shall be determined by the approved vocational teacher preparation institution in which the applicant is enrolled with the approval of the Department. Work and like experiences, as well as prior undergraduate course work should be considered when designing a program for attaining the Instructional I certificate, but in no case should the required course work be less than 72 credit hours, excluding the required nine (9) preservice credit hours.

*Holders of Instruction Intern Certificates shall be issued an Instructional I Certificate for a vocational area upon the completion of an approved intern program, proof of successful teaching experience, and passing a test of teaching and content skills approved by the Department.

Program Approval/Institutions

RECOMMENDATIONS:

The teacher education program approval process should be based upon four major guiding principles. These four major guiding principles are as follows:

1. The current Pennsylvania Department of Education standards should be replaced by **locally developed and defended knowledge base statements.** The knowledge base statements should reflect what is happening now in education and be defended through programs that are based upon current theory, research, and practice in education. The teacher education programs would be rooted in current knowledge of human learning and effective teaching. Each program of study would provide opportunities for integrative experience in general studies (liberal arts and science), pedagogical studies, as well as human growth and development studies.

2. Current specific standards should be replaced by **the standards of specific professional associations.** The specific standards of each professional association (i.e. math, science, and so forth) in conjunction with current research findings would be incorporated within the institutions' design of their education programs. Teacher education institutions would design rigorous programs of study which would include an integrated core of general studies grounded in liberal arts and sciences. Programs of study would include the articulation of a body of knowledge that individual institutions deem appropriate for the task of preparing teachers, counselors, school psychologists, school administrators, and related professionals.

3. The site-review is a real self-study that is rigorously carried out by the institution and reviewed by the PDE and the PSPC. The sequence of the program review would include.

   (1) the institution developing and conducting a self-study of its knowledge based program and program goals, followed by

   (2) the site review team validating the institution's self-study.

   NOTE: See PAC-TE's Draft Document Sequence of Program Review under SUPPORTING STATEMENTS for more details.

4. Teacher Education Programs should be clear partnerships among basic education, higher education, and the community. Teacher education institutions and basic education agencies should develop plans which would help both faculties and strengthen teaching at both institutions. Higher education and basic education faculties would support one another and provide mutual opportunities for remaining well informed about current developments and research in pedagogical theory as well as "bridge" educational theory and practice.

SUPPORTING STATEMENTS:

On October 7, 1991, PAC-TE discussed their fourth draft of their recommendations for a Chapter 49 review. Two areas which they addressed are (1) **Components of Teacher Education Programs** and (2) **Sequence of Program Review.**

COMPONENTS OF TEACHER EDUCATION PROGRAMS: PAC-TE believes that the process of program approval must shift from an assessment of the level of compliance with narrowly defined standards. Rather, institutions should engage in a true self-study through which programs are analyzed in light of current theory, research and practice in education. Self-study should, above all else, challenge institutions to justify their programs as integrated wholes.

PAC-TE recommends that each institution devise the format of a self-study with the review chairperson, the Pennsylvania Department of Education (PDE) liaison, and the Professional Standards and Practices Commission (PSPC) liaison utilizing the following components:

Component 1: Teacher education programs must be rooted in current knowledge of human learning and effective teaching.

* Teacher education programs must be informed by recent and contemporary educational research and professional practices.
* Programs of study should provide opportunities for integrative experiences that support students in relating 1) liberal arts disciplines, 2) pedagogical studies, and 3) liberal arts and pedagogy into an integrated theory of instruction.

Component 2: Teacher education programs must include developmental field study experiences in settings which include typical, at-risk, and underchallenged learners.

* Teacher education programs must include a developmental series of field experiences that range from observation to teaching participation and which include diversity in educational settings, student characteristics, and cultures. These experiences should support and extend the institution's program.

* These experiences must include partnership settings where basic education and higher education faculties work together to design and evaluate the field experience component of the teacher education program.

Component 3: Teacher education institutions must develop plans to involve their faculty with basic education agencies in partnerships which strengthen teaching at both institutions.

* Colleges and universities must plan to help their faculty members to serve as bridges between educational theory and practice.
* Faculty development programs must include support for
  1) research and development activities directly related to teaching, and
  2) enhancement opportunities for faculties of both higher education and basic education to remain very well informed about current developments and research in pedagogical theory.

Component 4: Teacher education institutions must commit the full range of institutional resources to the development and maintenance of quality programs in education.

* The institution must include in its self-study data which support the conclusion that the teacher education unit has received financial support, instructional resources, faculty and staff complement, and facilities commensurate with other units in the institution.
* Criteria for the determination of rank and tenure of teacher education faculty must include quality current participation in basic education.
* Faculty selected to provide instruction in pedagogy and supervise field experiences must have appropriate professional experiences in basic education and formal education for the role.
* Institutions must seek to create effective working partnerships between teacher education faculty and faculty in other disciplines.

Component 5: Teacher education institutions must design rigorous programs of study that will lead to the preparation of teachers who will be recognized by their peers as true professionals.

* Teacher education programs should include an integrated core of general studies grounded in the liberal arts and sciences.
* Programs of study must include the articulation of a body of knowledge that individual institutions deem appropriate for the task of preparing teachers, counselors, school psychologists, school administrators, and related professionals.
* Teacher education institutions must demonstrate that they have carefully considered the standards of specific professional

associations, as well as current research findings, in the design of their education programs.

Component 6: Teacher education institutions must identify those individuals who demonstrate ability levels appropriate for the teaching profession and recommend only such individuals for teaching certificates. Special efforts must be made by teacher education institutions to recruit and retain minority persons in their teacher education programs.

- * The institution must present evidence that appropriate methods for assessment have been utilized in the admission and retention of candidates for teacher education programs.
- * Institutions must demonstrate that they use the results of assessment in a continuous progress check. Individuals who do not demonstrate appropriate levels of ability will not be permitted to continue in the teacher preparation program.

Component 7: Teacher education institutions must maintain an advisory body or bodies for their teacher preparation programs that provide membership for institutional faculty, faculty and administrators from basic education, and students.

- * Teacher education programs should be reviewed regularly by the advisory body or bodies for effectiveness in preparing graduates who are successful beginning professionals.
- * The recommendation of the advisory body or bodies must be considered in program development and revision.

SEQUENCE OF PROGRAM REVIEW:

1. Eighteen months before the site visit, institutional representative(s), review chair, PDE liaison, and PSPC liaison meet to devise a self-study format and to determine the appropriate size and composition of the team.

2. The institution conducts a self-development study which articulates its program knowledge base and provides evidence of the extent to which its programs meet their goals.

3. At least three months before the visit, the review team chair selects areas for review and assigns roles to team members who review the self-study document and develop guide questions for the site visit. These questions are reviewed by the team chair and provided to the teacher education institution. Team members are selected on the basis of institutional and experiential background and by discipline. Teams are formally prepared by the PDE so that they possess a uniform understanding of program components and use reliable techniques for assessing institutional responses to these components.

4. The visit is conducted to validate the institution's self-study and focuses primarily on interviews with faculty, cooperating teachers, students, and administrative personnel.

5. Time is provided during the visit for the writing of the complete report. The review chair, the PDE liaison, the PSPC liaison, and the team members meet representatives of the teacher education institution to present their report. A detailed written report, with all recommendations supported by detailed observations, is provided to the institution by PDE within 30 working days after the site visit.

6. The institution is given up to 3 academic months to respond to the team report. This response should include a specific plan to address any weaknesses that have been identified by the review team.

7. The PDE allows the institution adequate time to address program deficiencies; if these are not addressed, program approval will be withdrawn.

Intern and Substitute Certificates

RECOMMENDATIONS:

The PSPC recommends the Emergency Certificate as described in Chapter 49.31, 49.32, 49.33, and 49.34 be eliminated. Two options would be created to assist urban and rural districts who are experiencing teacher shortages. The two options would be as follows:

Option 1 - Intern: A type of intern certificate would be available to holders of a bachelor's degree subject to continuing education. Current holders of teaching certificates would also be able to obtain an intern certificate to teach outside their area of certification while gaining a new certification or endorsement.

Requirements:

Applicants for an intern teacher certificate must have a bachelor's degree and extensive preparation in the area of certification sought or a certificate in another area. In addition, applicants must be currently enrolled in a program leading to Instructional I Certification. Applicants must maintain continuous enrollment in courses within the program.

Scope:

The scope of the intern teacher certificate will be the same as that for the Instructional I Certificate.

Program:

The Department of Education will issue intern certificates upon recommendation of a teacher preparation institution. The recommending institution will include with the recommendation a list of courses to be completed for Instruction I Certification. A person may teach in the area of certification for a period of 45 calendar days following the date of recommendation.

Option 2 - Substitute: A substitute's certificate would be issued to holders of a bachelor's degree. This substitute's certificate would be renewable annually.

Persons with a professional certificate in the needed area should be given job preference over those holding only a substitute's certificate.

School Districts would be able to issue "30 day" temporary intern and substitute's certificates.

Requirements:

Applicants for a substitute teacher certificate must have a bachelor's degree and extensive preparation in the area of certification sought or a certificate in another area.

Scope:

The scope of the substitute teacher certificates will be the same as that for the Instructional I Certificate. Districts will not hire/assign a person holding a substitute if a person holding an applicable Instructional I, Instructional II, or Intern Certificate is available.

Program:

The Substitute Certificate will be issued by the Department of Education to persons meeting the requirements.

SUPPORTING STATEMENTS:

1. The PSPC recognizes the continuing need for beginning teachers in most urban school districts and in some remote rural school districts. However, high standards must be maintained for both the intern and substitute certificates. The objective of both these certificates would be the same: to rigorously prepare an individual to obtain a standard, full teaching certificate.
2. The candidate for the intern or substitute certificate should have at least a bachelor's degree in a subject matter field. He or she could be a mid-career professional or an educational support person who holds a bachelor's degree and is changing fields after any number of years of work experience. He or she could also be a current holder of a teaching certificate who is seeking an additional certification or endorsement.
3. The candidate for the intern or substitute certificate should receive substantial training in pedagogy.
4. The professional studies component must be conducted in conjunction with a state-approved college or teacher education program.
5. Extensive support systems for the person holding an intern or substitute certificate must be provided by veteran educators serving as mentors.

6. The candidate for the intern or substitute certificate must be evaluated frequently and must be given the time necessary to truly learn both what to teach and how to teach it.

7. To receive a full teaching certificate, a person holding an intern or substitute certificate must achieve the same state standards in basic skills, subject matter, and pedagogy as those required of traditional route teachers. All program and state testing requirements must be passed within a specified length of time.

8. These nontraditional routes to teaching should supplement, not supplant, the traditional routes of certification.

9. The intern certificate and the substitute certificate should be regularly assessed to determine their validity and effectiveness in preparing individuals for teaching and then be redesigned as necessary.

Induction

Approval of Induction Plans:

Prior to July 1, 1994, each school entity shall submit to the Department of Education for approval a revised plan for the induction experience for first-year teachers. Newly employed professional personnel with prior school teaching experience may be required by the school entity to participate in an induction program.

1. The induction plan shall be developed by teacher representatives chosen by teachers and administrative representatives chosen by the administrative personnel of the school entity, with a majority of teacher representatives. The plan shall describe the persons who develop the plan and how the persons were selected.
2. The induction plan submitted to the Secretary of Education shall be approved by both the development committee and the board of the school entity.
3. The Secretary of Education will promulgate guidelines which include a process for amending induction in accordance with the requirements for preparation of the revised plans.
4. The induction plan shall include a section which describes how the needs of the first-year teachers are met through the implementation of the plan.
5. The induction plan shall include the method by which the program will address the issue of Professional Practices and Conduct.
6. Revised induction plans shall be implemented no later than the beginning of the 1994-95 school year.

The department will review for approval induction plans submitted.

The induction plan shall reflect a mentor relationship between the first-year teacher and the induction team. Induction teams shall include both administrators and mentor teachers. Administrator members of induction teams shall not use induction activities to rate the first-year teacher nor shall information disclosed to teacher mentors in induction activities be considered as part of a first-year teacher's rating.

Criteria for approval of the induction plans will be established by the Secretary of Education in consultation with the State Board of Education.

College-School Partnerships

Development of expertise in professional education at the level of initial teacher or administrator certification as well as the provision for continuing professional development needs to belong broadly to the profession. At present, relationships between higher and basic education are typically transitory and not carefully planned. To provide a more stable and supporting environment for the development of professional expertise and knowledge, teacher and school administrator preparation institutions and public schools need to work much more closely together. Professional educators in higher education are viewed as being too theoretical and impractical from field based practitioners, while practitioners are often viewed as not being current in pedagogy or knowledge of organizational practice by higher educators. The solution to this problem is for higher educators and basic educators to work together and reach common ground. The issue to be solved is actually more logistical than philosophical. Preparers of educational professional and practitioners work in different environments and serve institutions which have different values. Preparers of teachers and practitioners need to work together a great deal in both environments. The school and the college need to keep the education of the professional educators and the improvement of school practices both in focus.

The objectives of partnerships should deal more with individual needs of the participating basic and higher educators than with the needs of their institutions. More specifically, the objectives should be:

1. to provide for a full understanding of the role of each professional dyad (basic and higher educators);

2. to work cooperatively to improve the relevance of the preparation programs to contemporary reality in schools;

3. to provide opportunities to implement developing pedagogies or leadership strategies in the classroom; and

4. to communicate results of school based development of pedagogical and leadership knowledge to other professional educators.

The purpose of college school partnerships is clearly two-fold: improving the applicability of the preparation programs to the functioning school and improving the school to deliver or manage instructional programs. In professional preparation as well as in educational research and development, we are either destined to create effective partnerships or loose vitality of program.

These are some caveat on partnership development that need careful consideration.

1. Partnerships exist only between active participants that are able to spend time working together over a long and consistent period.
2. Partnership pairs from basic and higher education need time away from their traditional duties to work out strategies to improve preparation and provide for development.

As partnership programs develop, teacher education and related activities of school/college/departments of education will need to move the delivery of service increasingly into the public school environment.

Testimony
on the
Chapter 49 Certification of Professional Personnel Recommendations
prepared by
The Pennsylvania School Librarians Association
Harrisburg, PA
October 8, 1992

I appreciate the opportunity to testify before the members of the Professional Standards and Practices Commission of the State Board of Education and to offer comments on the review of Chapter 49 (Certification of Professional Personnel). I am Sally Myers, President of the Pennsylvania School Librarians Association and a practicing school library media professional. Our association supports your re-examination of Chapter 49 as made under section 5(a)(14) of the Teacher Certification Law. In light of the outcomes produced by earlier deliberations on Chapter 5 (Curriculum Regulations) the competencies required for certification for all teaching personnel should be re-examined for their adequacies to educate students to meet the new curriculum requirements.

Our association would like to state our conviction that certification is essential for all individuals with teaching responsibilities in Pennsylvania schools. From our prespective we are aware that application of new information technologies in education must be a factor in assessing what certificated personnel must know in order to perform their teaching functions. I would like to respond to the Recommendations to the State Board of Education, Draft 6 (September 10, 1992) as we also recognize that the position paper of the Professional Standards and Practices Commission delineates future development of specific certification for school librarians. I would like to draw your attention to our national published guidelines for professional practice in school libraries which address the professional competencies that underlie the information processing requirements that are now part of the revised Chapter 5.

The national guidelines for school library media practitioners, Information Power, call for school library professionals to perform three roles in the school: information specialist, teacher and instructional consultant.

> As information specialists they are expected to develop resource centers to support the curriculum and guide users in the location and selection of appropriate resources, at the local school level, in extended information cooperatives, and in networks as they develop.
>
> As teachers they must ensure that information skills, knowledge, and attitudes are an integral part of the curriculum by working with classroom teachers in all subject areas to embed these skills as part of their teaching program. These integrated skills include understanding and incorporating critical thinking strategies and concepts; supporting critical reading, listening and viewing activities; teaching students their rights and responsibilities under the First Amendment of the United States Constitution; and in relation to copyright, privacy and other legislation that will give them lifetime access to information.
>
> As instructional consultants they participate in curriculum design and assessment, help teachers develop instructional activities, provide expertise in the selection, utilization, and evaluation of materials and technology for instruction.

The competencies required to perform these roles must be part of our state certifications if we are to prepare professional information specialists to work as partners with other faculty to educate students to achieve the outcomes as prescribed in the latest Chapter 5 revisions. This premise prevades our responses to any review of instructional certificates that would address Early Childhood through Young Adulthood Education and the specialized subject matter content of library and information skills and their integration through collaboration.

It is incumbent on the Commonwealth to set minimum standards for assessing practioners if they are to acheive the desired programmatic outcomes that appear in the revised Chapter 5. Subject matter for teaching can derive from other adult careers; however, it is incumbent on the Commonwealth to require that candidates for certification also obtain assessable pedagogical skills in order to work effectively with their subject knowledge in a classroom setting. It follows logically that all competencies for all professional personnel be periodically updated to maintain certification.

Societal concerns about our increasingly diverse student populations require that professional teaching personnel be knowledgable about child development, differences in learning styles and competent to work with instructional design issues that address these concerns. Diversities among competent teachers can add to the esteem of these populations by representing themselves as role models to students. Attracting and retaining minority candidates to the teaching field can best be achieved through effective role models that draw individuals to careers in schools. Individuals who aspire to be teachers should be exposed to broadly drawn clinical experiences.

High quality professional performance in schools requires monitoring. Any professional school employee who has assigned responsibility to teach should fall under certification regulations.

The members of the State Board of Education have assumed the task of restructuring schools in Pennsylvania. It has been a vast undertaking that has already shown remarkable insights. This commendable effort must be shored up by competent professionals who will continue to meet the challenges that face our communities and our nation. The Pennsylvania School Librarians Association welcomes the opportunity to provide input for the standards for certificates for school librarians.

REFERENCE

American Library Association and Association for Educational Communication and Technology. Information Power: the Role of the School Library Media Program. American Library Association: Chicago, 1988.

APPENDIX H

Senate Education Committee: Distance Learning

SEAL OF THE SENATE OF PENNSYLVANIA

Senate Education Committee
Room 281 • State Capitol • Harrisburg, PA 17120-0030 • (717) 787-2637

Senator James J. Rhoades, Chairman
Helen E. Caffrey, Executive Director

DISTANCE LEARNING

As we move steadily toward the 21st century, policy makers and educators are beginning to examine new and innovative ways to teach our students. As times change, we must look forward and set a course which will carry education into the 21st century. Distance learning programs are key to that vision.

In April of 1991, the Distance Learning Task Force was formed under Senator Rhoades' leadership. Since that time the group has worked to identify the distance learning needs of the Commonwealth's residents and formulate a plan to meet those needs. The Task Force's strategy focuses on the Commonwealth's students and will bring education into the next century, using programs and technologies which are available today.

The Task Force's proposal has been developed to include participation and coordination through the following elements:

***The State Public School Building Authority**
***PANET**
***A Distance Learning Commission**

STATE PUBLIC SCHOOL BUILDING AUTHORITY

The linchpin for distance learning programs has been the funding required to get them started. Since money is tight on both the state and local levels, Senator Rhoades developed a plan aimed at using available funds to finance school districts' distance learning programs. The strategy will provide funding for distance learning applications, encourage community access and make the programs self-supporting.

FUNDING

Senator Rhoades presented this idea to the State Public School Building Authority, an organization which loans money to school districts for building and renovation projects. The Authority voted to earmark $2 million in existing funds for distance learning-telecommunications loans - making districts eligible to receive loans of $10,000 to $750,000. When the funds in the $2 million pool are exhausted, the Authority will take accumulated loans and develop a bond issue in order to generate additional funds for more loans.

COMMUNITY ACCESS

Senator Rhoades will soon introduce a bill to allow school districts to sublease the Building Authority financed distance learning equipment to non-profit or government organizations. This will allow community organizations to use the innovative equipment when schools are not.

SELF-SUPPORTING

Allowing communities access to innovative distance learning equipment on a sublease basis will make this program self-supporting. Sublease revenues will be used first to pay back Authority loans. After the debt is paid, districts may use sublease monies to purchase and upgrade equipment.

ASSESSMENT

Distance learning technologies could be very useful to some districts as they begin to implement the new Chapter 5 regulations and learning outcomes. Distance learning innovations could even enhance the delivery of new curriculum designs.

PANET

Senator Rhoades' Task Force is also concerned with providing a comprehensive telecommunications infrastructure for Pennsylvania's school districts. This can also be done with available resources. PANET is the Commonwealth's dedicated voice and data transmission network. Access to PANET saves various state agencies a substantial percentage of their telephone bills. Currently, the system is closed to our 501 school districts.

ACCESS

The Distance Learning Task Force has proposed that the administration make a simple policy change in order to allow public school districts across the state to use the service, realize phone cost savings and use the funds saved to develop distance learning programs. Savings will be substantial and distance learning programs will surely benefit from this funding source.

INFRASTRUCTURE

Access to PANET will provide school districts with membership to a statewide voice and data communications network. This is the true value of the PANET proposal. **A PANET system, which allows access to the state's school districts, could very well become a prime ingredient in any integrated, statewide distance learning program.**

ASSESSMENT

With the funding and infrastructure provided through PANET, Pennsylvania's 501 school districts will have the opportunity to build the telecommunication highways of the 21st century with the tools we have in the 20th.

DISTANCE LEARNING COMMISSION

The most important ingredient in the proliferation of distance learning programs is leadership. Senator Rhoades believes that school districts should be able to choose technology based on their individual needs. However, he also feels that there should be state-level leadership in helping school districts assess their needs and identify the applications which will meet them. He will soon introduce legislation to create the Distance Learning Commission. The Commission will provide leadership, technical assistance and information on public-private partnerships to developing distance learning programs at the local, regional or state levels.

LEADERSHIP

The Distance Learning Commission will serve to define the Commonwealth's distance learning policy and provide leadership and direction to school districts and other entities in the development of the policy from a central point.

TECHNICAL ASSISTANCE

The Commission will work in concert with the Department of Education to assist school districts and private sector users in developing innovative distance learning programs. Through the Department, the Commission will provide information on PANET and potential funding through the Building Authority program, how to gain access to or develop regional networks, and how to locate available funds and utilize state-wide programs.

PUBLIC-PRIVATE PARTNERSHIPS

The Commission will serve the important purpose of promoting partnerships between public and private sector entities. Though subleasing equipment to the private sector must occur through non-profit entities, such as local or regional Chambers of Commerce, it is very important to encourage the development of these regional "networks". These kinds of networks will encourage the development of new technology applications while expanding their use.

ASSESSMENT

With this leadership in place, school districts and others without expertise in the fledgling distance learning field will not be left without the telecommunications option. The Distance Learning Commission will allow Pennsylvania's 501 school districts to begin moving their curricula into the 21st century.

APPENDIX I

Commonly Asked Questions about Distance Learning

STATE LIBRARY OF PENNSYLVANIA
1745

Commonwealth of Pennsylvania

Department of Education
333 Market Street
Harrisburg, PA 17126-0333

COMMONLY ASKED QUESTIONS ABOUT DISTANCE LEARNING IN PENNSYLVANIA

What is distance learning?

Distance learning is an educational experience in which the teacher and student, physically separated by location, use technology to communicate cost effectively and efficiently. Distance learning provides students and adults with a chance to participate in educational opportunities otherwise unavailable to them.

What types of distance learning programs are used in Pennsylvania schools?

The most popular distance learning programs focus on delivering student courses or teacher in-service programs by satellite or teleteaching technologies. Teachers and students exchange ideas, information, and curriculum materials using the interconnectivity capabilities of telephone networks.

How many schools are using distance learning?

Satellite dishes:
school districts: 122
vo-tech schools: 3
intermediate units: 25

Teleteaching sites: 31

SERC:
1992-93 student enrollment: 346
districts: 45

TI-IN:
students: 46
districts: 7

What is available to schools via satellite?

Both student courses and staff development programs are available via satellite to schools in Pennsylvania. SERC (Satellite Educational Resources Consortium) offers student courses in Japanese, Russian, Latin, Probability and Statistics, Discrete Math, Precalculus, Micro and Macroeconomics, World Geography, Physics and Integrated Science 7. Programming is also available from national providers, such as ASTS, STEP, and TI-IN.

What equipment must a school have to offer satellite programs to students and teachers?

Schools need a complete satellite receiving system with both C-band and Ku-band operation, capable of receiving a split transponder. The recommended minimum satellite dish size is 3.7 meters, and should be a solid surface designed for Ku-band performance. A 25-inch television monitor and video cassette recorder are needed to view the programming. Some satellite program providers require a speakerphone, microcomputer keypad system, or subscriber interface device for interactivity. To get specifications and guidance on purchasing satellite equipment, please call Bob Swank (717)533-3221 at the Pennsylvania Public Television Network.

How much does satellite equipment cost?

In 1991, average costs in Pennsylvania were about $7000 for the satellite receiving system. This price includes a standard ground mount. Locating the satellite equipment on the roof of a school building is more costly. The satellite equipment should be within about 200 feet of the distance learning classroom. A longer distance requires more wiring and signal amplification.

What is SERC?

SERC (Satellite Educational Resources Consortium) is a 22 state consortium delivering over 1500 hours of educational programming via satellite to schools districts. A variety of student courses and staff development workshops are available to schools.

How can I join SERC?

Since the Department of Education is a member of SERC, any Pennsylvania school or educational agency with satellite receive equipment may register for SERC programming. Schools with satellite equipment are sent SERC announcements, staff development offerings and student registration kits. For SERC information, contact Jean Tuzinski (717)783-4414 or call the SERC HOTLINE at (800)476-5001.

What does it cost to participate in SERC?

Student course tuition: $420.00 per student per year
Language supplement: $70.00 per student per year
SERC staff development programming costs: $40.00 per site per hour

If my district has a satellite dish, where can I find out about state and national teleconferences?

Information regarding video teleconferences for educators is posted weekly on the PENN*LINK distance learning bulletin board. Satellite program providers are also on the bulletin board, listed in the National Update section under "Satellite News".

What is teleteaching?

Teleteaching uses a system of two-way audio, one way video over a telephone system to deliver distance learning programming. Using microcomputer technology, schools share instructors across geographic boundaries. Courses in science, mathematics, and computer technologies are being offered. For more information contact: Dottie Hajdu, Director, The Pennsylvania Teleteaching Project, Riverview Intermediate Unit (800)672-7123.

How much does it cost to purchase teleteaching equipment?

The total cost of a basic microcomputer system with audiographic software is approximately $5,500. Telephone lines installation and maintenance, costing about $1,000 is also required.

Can a school use a non-certified teacher's aide in a distance learning classroom?

Currently, a certified Level I or II teacher must facilitate the distance learning classroom in Pennsylvania. This teacher is trained to operate the equipment and facilitate the classroom instruction.

If I have a microcomputer with a modem, what services can I use?

A variety or local, state, and national networks are available to schools to meet administrative and curricular needs. Following are networks currently in use:

LOCAL: Many intermediate units have electronic mail/bulletin boards to foster communication within the intermediate unit. These networks provide immediate and cost effective exchange of ACCESS PENNSYLVANIA interlibrary loan requests.

STATE: PENN*LINK, the official electronic communication network of the Pennsylvania Department of Education links the Department, local school districts and intermediate units. PENN*LINK provides an electronic mail gateway to INTERNET and BITNET.

LIN-TEL (Linking Information Needs-Technology, Education, Libraries) is an electronic network administered by the Commonwealth Libraries to make online database searching and information retrieval available to school students, and to make research/resource gathering an integral part of the school library media curriculum.

PANET/PSINET connects elementary and secondary science teachers, academic science staff statewide. The PANET server accesses a national server for file exchange daily.

NATIONAL: INTERNET is a high speed electronic highway connecting educational institutions, libraries, research facilities and governmental agencies. PREPnet, a Pennsylvania partnership, provides a gateway for institutions in Pennsyvania to utilize INTERNET.

LEARNING LINK is a computer-based information and communication system coordinated by the Pennsylvania Public Television Network. LEARNING LINK supports and expands the use of instructional television and other electronic media.

What is available to schools using cable television?

The Department of Education works with the Pennsylvania Cable Television Association to coordinate the use of cable in the classroom, including CNN Newsroom, X*PRESS X*Change, Arts and Entertainment, C-SPAN and others. For cable information, contact William Cologie (717)234-2190.

PENNARAMA, a service of Pennsylvania State University in conjunction with the Pennsylvania Cable Network, offers continuing education courses to over 800,000 households statewide.

For more information, contact Wally Leech, PDE, Distance Learning Coordinator (717)783-9806 or Jean Tuzinski, School Library Advisor (717)783-4414.

November 1992

jht2/dlquest

APPENDIX J

Pennyslvania Strategic Planning Program: A Guide and Instructions

PENNSYLVANIA STRATEGIC PLANNING PROGRAM

GUIDELINES AND INSTRUCTIONS

PENNSYLVANIA DEPARTMENT OF EDUCATION

May, 1992

Commonwealth of Pennsylvania
Robert P. Casey, Governor

Department of Education
Donald M. Carroll, Jr., Secretary

Office of Basic Education
Joseph F. Bard
Commissioner for Elementary and Secondary Education

Bureau of Curriculum and Academic Services
Donald L. Clark, Director

Division of School Based Improvement
Joseph A. Skok, Chief

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Employees and participants who have an inquiry or complaint of harassment or discrimination, or who need information about accommodations for persons with disabilities, should contact Chalo Moreano, Affirmative Action/Contract Compliance Officer, Pennsylvania Department of Education, 333 Market Street, Harrisburg, Pennsylvania 17126-0333.

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INTRODUCTION

On March 12, 1992, the State Board of Education adopted a revised Chapter 5 Regulation that requires that:

> "Every school district shall develop and submit a strategic plan to the Department for approval once every 6 years ..."
>
> and
>
> "Every AVTS, in conjunction with and with the approval of its participating school districts shall develop and submit a strategic plan to the Department for approval once every 6 years..."

22 PA CODE CHAPTER 5, Section 5.203

The State Board has charged the Secretary of Education with the responsibility for administering the Board's intention by assuring that every Commonwealth school district and area vocational technical school shall complete a strategic plan.

It is the intention of the State Board of Education and the Secretary of Education that the Strategic Plan process be a locally meaningful group activity. It is the district's/AVTS's responsibility to assure that a representative advisory group (the Strategic Planning Steering Committee) be formed at the beginning of the planning activity and that the group be sustained and involved throughout the entire six-year cycle. It is also expected that the total school community, including those students participating in vocational education programs, Chapter 1 programs, special education programs, and other special needs populations, be accorded both adequate consideration in the planning process and adequate representation in developing the strategic plan.

The purpose of these Guidelines is to provide school districts and area vocational technical schools with specific directions for preparing the required strategic plan while still providing optimum planning latitude in the planning process at the local level.

The first year of the six-year planning cycle is known as the planning period—the period in which the plan is to be prepared. The second through sixth years of the cycle are years in which the implementation of the plan takes place. A Mid-Point Progress Report which includes a mid-point revision of the strategic plan is to be prepared during the third year of the planning cycle.

The Phase I planning period begins in June 1992, and continues until September 30, 1993. The first scheduled activity is a Department of Education orientation session which will include specific instructions for the development of the strategic plan.

SPECIFIC REQUIRED ACTIVITIES

Development of the strategic plan begins with the superintendent/AVTS director appointing a strategic planning coordinator and a representative strategic planning steering committee. Section 5.203 (d) of Chapter 5 specifies that the strategic planning steering committee shall be composed of:

a. school directors
b. teachers
c. school administrators
d. parents
e. students
f. other school personnel, and
g. other business and community representatives

Section 5.203 (d) further specifies that teacher representatives shall be chosen by teachers, administrative representatives shall be chosen by administrators, and school director representatives shall be chosen by school directors.

Section 5.203 also specifies that, if the district does not develop site-based plans, the committee developing the plan must seek input and suggestions from parents and staff of all schools.

There are ten specifically identified activities that the strategic planning steering committee must include in the preparation of the strategic plan. Briefly described, the ten specific activities are

1. DEVELOP A MISSION STATEMENT. The process of developing a mission statement involves developing a strong group consensus about the unique purpose of the district or AVTS. The process of development of the mission will set the tone for all further planning activity. The mission statement must:

   - Have been developed through discussion among the strategic planning committee

   - Be an outgrowth of a discussion of the unique district/AVTS purposes

   - Reflect the purpose and unique character of the district

2. DEVELOP A SET OF DISTRICT/AVTS GOALS. In developing a set of district/AVTS goals the committee should recommend to the local board a set of goals that include the Goals of Quality Education prescribed in Chapter 5, Section 5.201 (c) and any other goals that the committee deems appropriate in the accomplishment of the mission of the district/AVTS. The goals should be formally adopted by a resolution of the local board of school directors.

3. DEVELOP LEARNING OUTCOMES STATEMENTS. The process of developing student learning outcomes statements, including transitional outcomes, should begin with the list of learning outcomes statements prescribed in Chapter 5, Section 5.202. The committee should add any additional student learning outcomes statements or any further elaboration of state mandated outcomes statements that are necessary or desirable in the accomplishment of the defined mission of the district/AVTS. The plan shall indicate outcomes students must achieve in order to progress from the primary to the intermediate level, intermediate level to middle level and middle level to the high school program.

   Outcomes statements that are developed should be compatible with those included in local vocational education plans prescribed by the Perkins Vocational and Applied Technology Act, in local special education plans and in plans developed for other special needs populations.

   The student learning outcomes statements should be formally adopted by a resolution of the local board of school directors.

4. DESCRIBE GRADUATION REQUIREMENTS CRITERIA. An off shoot of the development of student learning outcomes is the establishment of a set of criteria which the district will use to determine achievement of student learning outcomes required for graduation. Since graduation requirements under the revised Chapter 5 are to take effect "...with the class entering ninth grade in the year following the year in which the initial strategic plan is submitted ...," graduation criteria for the district/AVTS must be reported in the initial strategic plan submitted by the district/AVTS.

5. DEVELOP PLANNED COURSES. The essence of the conversion from a class-time based system to a student learning outcomes based system is the revision of all district/AVTS planned courses to include student learning outcomes statements. The school district/AVTS is not required to complete the revision during the planning period. Rather, the initial strategic plan must include a set of strategies expressed as specific action plans that will cause district/AVTS planned courses to be revised during the first six-year planning cycle.

6. PLAN AND CONDUCT A COMPREHENSIVE NEEDS ANALYSIS. The needs analysis is a crucial part of the strategic planning process. It must involve a comprehensive identification of both internal and external strengths and weaknesses and include an analysis of instructional practices. The scanning process should rely on quantitative data whenever possible. It should query all stake holder groups within the local community giving each an opportunity to provide both hard data and informed opinion. The result of the needs analysis should be the main tool in developing priority goal areas for action planning.

7. DEVELOP A LIST OF PRIORITIES FOR ACTION PLANNING. Priorities are identified by a process that applies the information accumulated during the needs analysis to the list of general district/AVTS goals identified in (2) above. Those goals that show need for developmental action are prioritized on the basis of their relationship to the identified mission of the district or AVTS and on the severity of the need. One or more action plans are developed for each of the priorities.

8. DEVELOP SPECIFIC ACTION PLANS. One or more action plans are to be developed for each of the priority goal areas. The action plans are to identify specific actions to be taken to meet the identified priority needs. Action plans should include:

   a. Objectives
   b. Major activities to be completed
   c. Projected completion dates
   d. Person responsible (Name and Position)
   e. Estimated cost
   f. Evaluation questions to be asked
   g. Evidence to be used to answer evaluation questions
   h. Person responsible for the evaluation
   i. Completion dates for the evaluation

9. DEVELOP A DISTRICT/AVTS ASSESSMENT PLAN. Each district and AVTS must prepare an assessment plan designed to determine the degree to which the student learning outcomes are achieved by students. The district/AVTS assessment plan should include

   a. The general purpose of the assessments

   b. A description of the process to be used to develop and analyze portfolios of student work, including a variety of assessment strategies

   c. A description of assessment procedures to be used

   d. A description of how assessment results will be used

   e. A description of how the school will assist students who have not demonstrated mastery of the outcomes

   f. A description of the process for notifying the public of assessment results

10. PREPARE A PROFESSIONAL DEVELOPMENT PLAN. School districts and AVTSs are required to prepare both staff development plans (Act 178) and teacher induction plans (Chapter 49) on a two-year cycle. Chapter 5 requires that a professional development plan and an induction plan be prepared as part of the strategic plan. Since Chapter 5 can not supersede an act of the legislature, the professional development and teacher induction plans will be prepared as part of the strategic plan and then updated on a two year cycle until Act 178 can be revised by the legislature.

Section 5.203 (c) (6) requires that professional development plans submitted as part of the Strategic Plan must describe the relationship of the school district's or AVTS's professional development and induction plans to the achievement of the district/AVTS mission, goals and student learning outcomes.

Additionally, the initial Strategic Plan must include provisions for professional development activities which will prepare the professional staff to implement the Strategic Plan.

The professional development plan included in the Strategic Plan must follow the directions provided in Professional Development Plan Guidelines, 1992 Edition.

SPECIFIC REPORTING REQUIREMENTS

The following describes the specific items to be reported in the strategic plan that is to be submitted to the Department of Education on or before September 30.

The following items require a specific written response:

ITEM 1. Briefly describe the process used to develop the strategic plan. Include a list of the persons and their positions who have served on the development of the plan and who continue to serve as the strategic planning steering committee.

ITEM 2. Briefly describe the school district's or AVTS's organizational structure and describe the relationship between the structure and the achievement of the mission, goals and student learning outcomes established by the district or AVTS.

ITEM 3. Briefly describe the school district's or AVTS's professional personnel, school library resources, physical plant, and other resources used to achieve the mission, goals and student learning outcomes established by the district or AVTS.

ITEM 4. State the district or AVTS mission statement. The mission statement must be developed in accord with provision listed in paragraph 1, on Page 3.

ITEM 5. List the district or AVTS goals that were approved by the district or AVTS local board of school directors.

ITEM 6. List the student learning outcomes, including transitional outcomes, that were approved by the district or AVTS local board of school directors.

ITEM 7. List the criteria which the district/AVTS will use to determine achievement of student learning outcomes for high school graduation.

ITEM 8. List the district or AVTS priority goals that were selected as a result of the needs analysis process.

ITEM 9. Include action plans that were developed in each of the priority goal areas. Action plans should include the elements identified in paragraph 8, on page 5.

ITEM 10. Describe the district's planned courses and the instructional practices to be used to achieve the district/AVTS mission, goals and student learning outcomes.

NOTE: For this initial strategic plan, action plans must be included that will provide for the development and revision of the school district's or AVTS's planned courses to bring them into accord with the new Chapter 5 requirements. In developing action plans, special attention should be paid to the requirements in Chapter 5, Section 5.218, Vocational-Technical Education, and Section 5.219, Special Education.

ITEM 11. Describe the district's or AVTS's assessment plan including those elements identified in paragraph 9, on page 5.

ITEM 12. Describe the district's or AVTS's professional development plan including those elements identified in 10, on page 5.

SUBMISSION PROCEDURES

Chapter 5, Section 5.203 clearly states that the strategic plan shall be submitted to the Department of Education for approval ONLY after it is recommended by the school district or AVTS superintendent of record and is approved by the school district or AVTS board of directors.

Section 5.203 further provides that the strategic plan must be made available for public inspection in the school district or AVTS offices for at least 30 days prior to its approval by the board of school directors.

Upon submission of the strategic plan to the Department, the plan will be approved by the Commissioner for Elementary and Secondary Education only after it has been recommended for approval by a team of teachers, administrators and Department personnel to be convened by the Department.

The approved plan shall remain in effect until it is superseded by an approved revision or a new strategic plan.

Three copies of the strategic plan shall be submitted to the Chief, Division of School Based Improvement, Pennsylvania Department of Education, 333 Market Street, Harrisburg, PA 17126-0333. Submission shall occur on or before September 30 of the year in which the plan is due. Submission shall be accompanied by one originally signed SIGNATURE FORM, PDE-3094, a copy of which appears on the following page.

1992-93
Strategic Planning
in Pennsylvania

STRATEGIC PLAN

SIGNATURE FORM

Date Submitted to PDE: ______________________________

School District/AVTS: ______________________ IU: ______

____

____

______________________ Zip Code: ______

Chief School Administrator/AVTS Director: ______________________

Telephone: ______________________

We affirm that this Plan has been developed in accordance with the Strategic Plan guidelines and that the contents are true and correct. We further affirm that the plan has been placed on public review in the district office for at least thirty (30) days prior to the school board meeting at which the plan was approved.

Signature	Date School Board Secretary
Signature	Date School Board President
Signature	Date Chief School Administrator

PDE-3094 (4/92)

STRATEGIC PLAN APPROVAL PROCEDURE

Authority: State Board of Education Regulations, Chapter 5, Section 5.203, (G)

> "The Secretary will designate teams of teachers, administrators and Department personnel to review and evaluate strategic plans submitted to the Department under this section and to recommend approval or revision to the Commissioner for Elementary and Secondary Education."

In order to accomplish the above responsibility, the Secretary of Education will convene teams of three teachers, three administrators, and three PDE persons who will review the plan after it is submitted by the district/AVTS. The review will include a Technical Review and a Qualitative Review.

Part I Technical Review

The review team will insure that the plan as submitted is a complete plan, i.e., that the plan contains the following items as required by the the following numbered items from STRATEGIC PLANNING PROGRAM: GUIDELINES AND INSTRUCTIONS:

(A) Item 1 - page 7.

A Listing of Committee Members
Description of Planning Process

(B) Item 2 - page 7.

A description of the Organizational Structure and Relationship of structure to mission, goals and learning outcomes achievement

(C) Item 3 - page 7.

A description of:

Professional Personnel
Library Resources
Physical Plant
Other Resources

As those resources relate to the accomplishment of the mission, goals, and learning outcomes of the district/AVTS

(D) Item 4 - page 7

Mission Statement

(E) Item 5 - page 7

District/AVTS Goals

(F) Item 6 - page 7

A listing of Exit Outcomes
A listing of Transition Outcomes

(G) Item 7 - page 7

A Description of criteria the district/AVTS will use to determine achievement of student learning outcomes for high school graduation.

(H) Item 8 - page 7

A Listing of Planning Priorities
Brief description of the needs analyses process

(I) Item 9 - page 7

Action plans based on district needs

(J) Item 10 - page 8

Year-by-year actions plan to review the district/AVTS planned courses and instructional strategies and to bring them into compliance with Chapter 3, 5 and 6 regulations within the next five years. Action plans must address all curricular areas including the district vocational education program and special education program.

(K) Item 11 - page 8

A year-by-year action plan which will result in districts/AVTS's having a comprehensive assessment plan to measure the degree to which students achieve outcomes.

(L) Item 12 - page 8

A two-year professional development/induction plan.

(M) Submission Procedures - page 9

A Properly Completed Signature Page Evidence that the Plan has been available for public review for 30 days prior to its adoption by the local board of school directors

PART II Qualitative Review

The review team will make judgements regarding the potential of the plan to, if fully implemented, result in students achieving the learning outcomes. Specific areas of the plan which will be addressed in this part are as follows:

1. The plan to review curricular and instructional strategies.
2. The plan to develop a district assessment plan.
3. The plan to develop the professional staff.

In reviewing each of these sub-plans, the review team will make qualitative judgements within the following categories, among others.

- The active participation of teachers, administrators, school directors, other school personnel, parents, students, and business and other community representatives in development of the plan.
- The thoroughness of the planning approach regarding Chapters 3, 5 and 6.
- The proposed sequencing of the plan activities (timetables) where necessary or desirable for various student grade or age levels.
- The attention to staff development needs within the plan arena (especially important for Act 178 and induction component).
- The local public notification, involvement and opportunity for review of actions.
- The recognition of the needs for all children.
- An overall perspective that the proposed action plan activities will lead to the development of planned courses and instructional practices that are at least as rigorous as those taught at the time of the strategic plan development.
- Evidence that the district/AVTS has used data from a variety of sources including school profiles, fiscal data, enrollment projections, surveys, etc., in the development of the plan.

Additional, more specific approval criteria will be published under separate cover and included as a part of series of documents called Pennsylvania Strategic Planning Resource Guides. The Pennsylvania Strategic Planning Resource Guides will be available in September 1992. For more information, please contact the Chief, Division of School Based Improvement, Pennsylvania Department of Education, 333 Market Street, Harrisburg, PA 17126-0333, telephone (717) 783-2862.

APPENDIX K

People Who Responded to Interim Data

APPENDIX K

People Who Responded to Interim Data

PACET Members

1. Bob Guglielmi
   Computer Specialist
   Neshaminy School District
   2001 Old Lincoln Highway
   Langhorne, PA 19647
   (215) 952-6433

2. Linda Cook (also belongs to PASCD) I.U. 5
   Director, Instructional Materials Services
   Northwest Tri-County IU 5
   252 Waterford Street
   Edinboro, PA 16412-2399
   (814) 734-5610

3. Laurel Thomas (Representing husband Lawrence who is...)
   Media Specialist
   Northgate School District
   589 Union Avenue
   Pittsburgh, PA 15202
   (412) 734-8015

4. John Zinzi
   Principal
   Otto-Eldred School District
   143 Sweitzer Drive
   Duke Center, PA 16729-9709
   (814) 966-3212

5. Bob Supko
   Media Director
   Phillipsburg-Osceola Area School District
   200 Short Street
   Phillipsburg, PA 16866
   (814) 342-1521

6. Kathryn Johnston
Teacher/IMS Representative
Harmony Area School District
RD #1
Westover, PA 16692
(814) 845-7655

7. Jack Day
Media Specialist
DuBois Area Junior High School
German Settlement Road
Ridgway, PA 15853
(814) 371-9199

8. Sharon Radaker
Media Specialist
Riverview Intermediate Unit
RD #2, Box 403C
Shippenville, PA 16254-8998
(814) 226-7103

9. Jean Mellendick
Educational Consultant
TI-IN Network
3315 Smith Street
Parkersburg, WV 26104
(304) 428-1710

10. Jean Tuzinski
School Library Media Advisor
Pennsylvania Department of Education
Division of School Library Media Services
333 Market Street
Harrisburg, PA 17101
(717) 783-4414

11. Dr. James Fogarty (also belongs to PASCD) I.U. 29
Director of Curriculum & Technology
Schuylkill County Intermediate Unit
Box 130, Special Education Center
Mar Lin, PA 17951-0130
(717) 544-9131

12. Charlene Scheib (also belongs to PASCD) I.U. 29
ACCESS PENNSYLVANIA Coordinator
Schuylkill County Intermediate Unit
Box 130, Special Education Center
Mar Lin, PA 17951-0130
(717) 544-9131

13. Derrick Mergen
Supervisor of Technology
Arin Intermediate Unit
Route 422 East, P O Box 175
Shelocta, PA 15774-0175
(412) 463-5300

14. Gerald Gigliotti
Learning Resources Department
Punxsuntawney Area Schools
N. Findley Street
Punxsutawney, PA 15767
(814) 938-5151

15. David Mitchell
Senior High School Librarian
Corry School District
534 E. Pleasant Street
Corry, PA 16407
(814) 665-6341

16. Arthur MacDonald (also belongs to PASCD) I.U. 21
Director of Instructional Support Services
Colonial Northampton IU 20
6 Danforth Drive
P O Box 3060
Easton, PA 18043-3060
(215) 252-5550

17. Karl McMinn
Computer Coordinator
Mifflin County School District
201 Eighth Street
Lewistown, PA 17044-1197
(717) 248-0148

K-4

Legislative/Political Strategy Group Members

1. Don Morabito, Assistant Executive Director, GR
2. Carol Karl, Assistant Director, Legislation
3. Janet Filardo, Assistant Director, Legislation
4. Emory Eyster, Assistant Director, Legislation
5. John Baughman, Director, Legislation
6. Carmen Matino, Executive Director, PSEA
7. Annette Palutis, President, PSEA
8. Patsy Tallarico, Treasurer, PSEA
9. Mark Widoff, General Counsel
10. Bob Strunk, Assistant Executive Director, Philadelphia
11. Bill Johnson, Director, Communications
12. Bob Baldis, Assistant Executive Director, Pittsburgh
13. Bill Hughes, Director, Research
14. Terry Barnaby, Assistant Executive Director, Ed. Services
15. Liz Stanley-Swope, Director, Special Education
16. Dick Sterner, Field Liaison to LPSG Group
17. Don Creola, Director, Ed. Support Services
18. Wythe Keever, Assistant Director, Communications
19. George Badner, Assistant Director, Communications
20. Marty Miller, Assistant Director, Communications
21. David Gondak, Vice President, PSEA

APPENDIX L

State Agency Personnel Interviewed

APPENDIX L

State Agency Personnel Interviewed

Sara Parker
Commission of Libraries
Department of Education

John Pachuta
Director of Bureau of Motor Vehicles
Department of Transportation

Arin Jones
Personnel Analyst
Department of Health

Kathy McFadden
Training Officer
Department of Education

Marietta King
Chief, Education and Training Units
Bureau of Policy Planning & Research
Department of Aging

Walter Leech
Coordinator of Distance Learning
Department of Education

Paula Liken
Recruitment and Placement
Department of Public Welfare

Patrick Cummings
Director of Training and Staff
Development Unit
Department of Public Welfare

David Bayne
Associate Director
Department of Corrections Training
Academy

Jay Uhler
Compliance Specialist
Department of Agriculture

Sandy Wolfe, Administrative Officer
Municipal Training Division
Department of Community Affairs

Deb Davis
Personnel Officer
Department of Commerce

APPENDIX M

Participants in the Survey of Other States

APPENDIX M

Participants in the Survey of Other States

Alabama:
Ron Wright, Educational Technology Specialist, 205-242-8071

Connecticut:
Charles White, Educational Consultant, 203-638-4110

Florida:
Mike Kuhn, Program Specialist, 904-488-7101

Georgia:
Ken Flickinger, Educational Consultant, 404-656-2418

Hawaii:
Patsy Izumo, Director Multimedia Services Branch, 808-733-9143

Illinois:
Sharon Roberts, Manager Inst. Technology Section, 618-242-1676

Indiana:
Jacqueline Morris, Manager Learning Resources, 317-232-9122

Iowa:
Betty Buckingham, Educational Media Consultant, 515-281-3707

Kentucky:
Judy Cooper, School Library Media Consultant, 502-564-7168

Maine:
Walter Taranko, Media Coordinator, 207-289-5620

Maryland:
Greg Talley, Instructional Technology Systems, 410-333-2632

Minnesota:
Mary Dalbotten, Media & Technology Specialist, 612-296-2207

Nevada:
Jody Gehrig, Library Media Consultant, 702-687-3136

New Hampshire:
Susan Snider, Curriculum Supervisor Library/Media, 603-271-2632

Participants in the Survey of Other States (Cont'd)

New Mexico:
Mary Jane Vinella, Library Media Consultant, 505-827-6564

New York:
Joseph Mattie, Library Development, 518-474-7890

North Carolina:
Elsie Brumback, Director, Media & Technology Services, 919-733-3170

North Dakota:
Patricia Herbel, Director, Elementary Education, 701-224-2266

Ohio:
Carl Carter, Library Media Consultant, 614-466-9272

Oklahoma:
Barbara Spriestersbach, Executive Director, 402-521-3343

Pennsylvania:
Wally Leech, Distance Learning Coordinator, 717-783-9806

South Carolina:
Bob Reese, Director, Office of Instructional Technology, 803-734-8090

South Dakota:
Donna Gilliland, School Library/Media Coordinator, 605-773-3131

Texas:
Mary Lou Akers, Video Programming Specialist, 512-463-9400

Utah:
Kathleen Olson, Library Media Specilaist, 801-538-7789

Vermont:
Leda Schubert, School Library Media Consultant, 802-828-3111

Washington:
Clint Kruiswyk, Administrative Assistant, 509-456-6320

West Virginia:
Brenda Williams, Asst. Director, Office of Technology & Information Systems, 304-558-7880

Wisconsin:
Carolyn Folke, Director, Bureau Inst. Media Technology, 608-266-1965

APPENDIX N

Organizations Surveyed for Position Papers

APPENDIX N

Organizations Contacted For Position Papers

1. Agriculture and Rural Affairs Commission
2. American Federation of Teachers
3. Cable Alliance for Education
4. Center for Adult Literacy
5. Center of Technology in Education
6. Governor's Office of Rural Affairs
7. The Middle State Association of Colleges and Schools Accrediting Commission
8. The National Association of School Boards
9. The National Education Association
10. The National Parent Teacher Association
11. The Pennsylvania Association for Educational Communications and Technology
12. The Pennsylvania Association of Intermediate Unit Curriculum Coordinators
13. The Pa Association of Rural and Small Schools
14. The PA Association of School Administrators
15. Pennsylvania Cable Network
16. Pennsylvania Cable Television Association
17. The Pennsylvania Congress of Parents/Teachers
18. The PA Department of Education
19. The Pennsylvania Educational Research Association
20. The Pennsylvania Elementary and Secondary Principals Association
21. The PA Federation of Teachers

Organizations Contacted For Position Papers (Cont'd)

22. The Pennsylvania School Boards Association
23. The Pennsylvania School Librarians Association
24. The PA State Education Association
25. Pennsylvania Educational Communication Systems
26. Pennsylvania Educational Technology Coalition
27. Pennsylvania Electric Association
28. Pennsylvania Rural Coalition
29. Pennsylvania Rural Electric Association
30. PA Public TV Network
31. Public Broadcasting System
32. Research for Better Schools, Inc.
33. Rural Education Council
34. Rural Electric Association
35. Rural Telecommunication Corporation
36. Rural Schools Task Force
37. Senate Education Committee
38. The State Library of Pennsylvania
39. Technology Education Association of PA
40. Telecommunication Ed Fund
41. The U.S. Department of Education - Office of Educational Research and Improvement
42. The United States Distance Learning Association

APPENDIX O

Distance Learning Analysis

Assessing Educational Opportunities: Identifying Needs

(All responses will be kept confidential)

Name: ______________________________
School: ______________________________
Position: ______________________________

Please read each statement carefully. Circle your response (1) to the question "How important is this to you?" and (2) to the question "To what extent does this happen in your setting?" Please circle N/A if the statement is not applicable to you. The scale for each question follows:

How important is this to you?

1 = Not important
2 = Slightly Important
3 = Moderately Important
4 = Important
5 = Very Important

To what extent does this happen in your setting?

1= Never Occurs
2= Low Level Of Occurrence
3= Moderate Level of Occurrence
4= High Level of Occurrence
5= Very High Level of Occurrence

Student Opportunities

	How important is this to you?						To what extent does this happen in your setting?						Comments
	Not Important		Moderately Important		Very Important		Never Occurs		Moderate Level of Occurrence		Very High Level of Occurrence		
1. Students in our school enjoy an instructional program that is diverse and provides them with unique learning opportunities.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
2. Students in our school enjoy an instructional program that accommodates differences in their learning styles.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
3. Students in our school have access to subject matter experts and resource people (other than our teachers) in the areas in which they are studying.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
4. Students in our school have opportunities to interact with and work cooperatively with students in other schools to exchange thoughts and ideas about what they are studying.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	

	How important is this to you?						To what extent does this happen in your setting?						Comments
	Not Important		Moderately Important		Very Important		Never Occurs		Moderate Level of Occurrence		Very High Level of Occurrence		
5. Students in our school are exposed to and have an opportunity to interact with minorities and learn about their cultures, such as Latin, Black, Mexican, and/or Native Americans, etc.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
6. Students in our school have access to college-level courses for credit as part of their program of study.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
7. Students in our school have the opportunity to participate in enrichment activities that provide learning experiences beyond their regular instructional program, such as field trips, cultural exchanges, etc.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
8. Students have the opportunity to develop positive attitudes and high self-esteem through a rich and varied learning environment.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
9. Students and teachers in our school have the opportunity to become aware of and interact with present and emerging technologies.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
10. The following special needs students have the opportunity to participate in programs specifically designed to meet their special needs, to challenge their skills and abilities, and to increase their chances for success in school. (Program examples: advanced placement and independent research, remedial courses and extended learning opportunities, etc.)													
a. At-risk students	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
b. Gifted Students	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
c. Non-English speaking students	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
d. Special Education students	1	2	3	4	5	N/A	1	2	3	4	5	N/A	

Staff Development/In-Service Opportunities

	How important is this to you?						To what extent does this happen in your setting?						Comments
	Not Important		Moderately Important		Very Important		Never Occurs		Moderate Level of Occurrence		Very High Level of Occurrence		
11. Teachers have the opportunity to exchange ideas and interact with professional staff members from other schools on a regular basis.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
12. School administrators have the opportunity to exchange ideas and interact with administrators from other schools on a regular basis.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
13. School administrators and teachers have the opportunity to exchange ideas and interact with administrators and teachers in other states.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
14. Teachers are given the opportunity to share their skills and subject matter expertise by teaching students and/or teachers in other schools.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
15. School administrators and teachers have opportunities to coordinate efforts with other schools to address special needs students and to develop and share ideas for programs to meet their needs, such as drug and alcohol prevention, student assistance teams, instructional support teams, enrichment activities, etc.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
16. Teachers have the opportunity to participate in networks of teachers and other educators with strong interest in a common area (i.e., cooperative learning, technology, student assessment, thinking skills, etc.)	1	2	3	4	5	N/A	1	2	3	4	5	N/A	

	How important is this to you?						To what extent does this happen in your setting?						Comments
	Not Important		Moderately Important		Very Important		Never Occurs		Moderate Level of Occurrence		Very High Level of Occurrence		
17. New teachers participating in the induction process receive a comprehensive orientation of our schools, training on critical topics, and meet frequently with other new teachers and mentors.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
18. Teachers have the opportunity to pursue additional educational certification and advanced degrees within their local geographic region.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
19. Teachers and administrators participate regularly in state and national conferences, meetings, institutes, etc.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	
20. Teachers and administrators have access to resources that will allow them to address and implement in the curriculum national priorities in math and science.	1	2	3	4	5	N/A	1	2	3	4	5	N/A	

21. Please list any courses or programs you are aware of that were cancelled in your school during the past three years due to low student enrollment.

22. Please list any courses, programs, or general topics you are aware of that students requested but you were unable to offer because either:
(1) the number of students expressing an interest was small
(2) teaching staff schedules were already filled or
(3) you were unable to locate a certified teacher to teach the course.

23. Please list specific courses, general topics, content areas, or activities that in an ideal world you would like to offer to your students.

24. Please list what you believe are your top three staff development/in-service needs.

25. Please list any outstanding programs, teachers, or other resources that your school might be willing to share with other schools.

Additional comments or suggestions:

465

464

Thank you for completing this form.

APPENDIX P

Requests for Applications (RFA)

STATE LIBRARY OF PENNSYLVANIA
1745

Commonwealth of Pennsylvania

Department of Education
333 Market Street
Harrisburg, PA 17126-0333

DATE: August 19, 1991

TO:
School District Superintendents
Intermediate Unit Executives
Intermediate Unit Instructional Materials Services Directors
Intermediate Unit Non-public Supervisors
Diocesan Offices

FYI:
Library Supervisors
PSLA President
PAECT President
PASCD President
Institutions of Higher Education, College of Education
Distance Learning Providers
Math and Science Associations
Instructional Television Directors

FROM:
Sara Parker
Commissioner of Libraries

SUBJECT: DISTANCE LEARNING REQUEST FOR APPLICATION
(See Attachment A for information regarding Distance Learning)

INSTRUCTIONS FOR SUBMITTING A DISTANCE LEARNING PROPOSAL APPLICATION:

A. Applicants may include:

1. Any local educational agency,
2. A partnership of two or more local educational agencies,
3. An Intermediate Unit representing two or more local educational agencies.
4. If a school district is part of a consortium proposal, it may not additionally submit a single school proposal.

B. Funding information:

1. Applications may request up to $25,000 per school district.

    a. Funds may be used to support the delivery, implementation, and evaluation of new distance learning courses for students and/or teachers.

    b. Funds may be used to pay for consulting work which is designed to lead to the provision of distance learning courses for students and/or teachers.

    c. Funds may be used to design new distance learning courses which offer a potential of going beyond immediate use.

    d. State or matching funds may be used to offset the cost of sharing a teacher to deliver distance education courses.

    e. The award funds may be used to purchase distance learning receiving and distribution equipment, services, and materials which might include but is not limited to: satellite receive equipment, VCRs, monitors, wiring and conduits, cable equipment, ITFS equipment, fiberoptic transmission lines, or distance learning microcomputers.

    f. Funds may also be used for software, service contracts, manuals, textbooks, curriculum development, and student or teacher registration fees.

2. **A 25% match of local funds to be applied specifically to the items listed in B.1 is required.**

    In kind services are not eligible for matching purposes.

3. A partnership application may include a request for administrative costs. Up to 10% of the funds, but not exceeding $5,000, may be requested for the Intermediate Unit or school district serving as the administrator of the project.

4. Project funds must be expended or obligated by June 30, 1992.

5. Special consideration will be given to districts which are rural, poor, and/or small.

    Poor, small, and/or rural districts are encouraged to form partnerships with larger, wealthier, and/or more urban school districts.

C. The applicants will be responsible for:

1. Obtaining any local, state, and/or federal licenses or clearances, and meeting safety standards which may be necessary for installing reception and distribution equipment.

2. Maintaining equipment in working order.

3. Installing or upgrading project equipment no later than June 30, 1992.

4. Enrolling students and/or teachers in a distance learning program by September 1992.

5. Submitting a final report regarding the impact on student achievement.
    (If the application represents a consortium effort, the final report must be consolidated.)

D. The application must include the following:

1. A cover sheet:

Applicant name and address: ______________________________

____

____

____

Telephone: ______________ Telefax: ______________

County ______________ IU: ______________

Number of school districts in application: __________

State money requested: $ ______________

Matching money: $ ______________

Total project: $ ______________

2. Information for each school district must include the following:

School District ______________________________

Superintendent: ______________________________
(Print or type)

Superintendent's signature: ______________________________

School District qualifies as: Small _____ Rural _____ Poor _____
(check all which apply, See Section G for definitions)

Address: ______________________________

____

County ______________ IU ______________

Telephone: ______________ Telefax ______________

Project Manager: ______________________________

Address: ______________________________

____

Telephone: ______________ Telefax ______________

3. Project overview: provide a brief project summary which must contain:
    a. Purpose of the project.
    b. The educational need and how it was determined.
    c. The student learners and how have they been chosen.
    d. The objectives or expected student learner outcomes.

4. Plan of action:
    a. Provide information on staff who will be working with the program, include qualifications and certifications and what inservice will be needed for the teachers.
    b. Provide a time-line for accomplishing the goals of the project.
    c. Provide information regarding where the project will take place and where equipment and staff will be located.
    d. Explain how the project objectives will be met.
    e. Define the potential for multiple use of the equipment that goes beyond the planned program.
    f. Include a description of the technologies which will be used to meet the objectives.
    g. Provide information concerning the partnership effort, if applicable.

5. A budget sheet which itemizes the specific equipment, services, and materials which will be purchased with the project funds, include state and local match funds.

   If the application is a consortium, it must include an itemized listing of the administrative costs.

6. Measurement of results: include information on how the objectives will be measured.

7. Long range plans: explain how the project will be continued after the funding ceases.

E. An original and one copy of the application must be received in the Department of Education, Division of School Library Media Services by 4:00 PM, Tuesday October 1, 1991. Telefaxed applications will **not** be accepted.

Send the applications to:

Dr. Doris M. Epler
Director, Division of School Library Media Services
Pennsylvania Department of Education
333 Market Street
Harrisburg, PA 17126-0333

F. Applicants may expect to be notified of the action taken on their proposal by November 1, 1991.

G. Criteria for Approval of Application.

The Applications will be given points for meeting the following criteria:

10 9 8 7 6 5 4 3 2 1 0	The extent to which the application demonstrates a need for distance learning based upon the financial, demographic, and educational needs of the area.
10 9 8 7 6 5 4 3 2 1 0	The extent to which the project defines the objectives.
5 4 3 2 1 0	The extent to which the objectives will use distance learning to meet the identified need.
5 4 3 2 1 0	The extent to which the program is designed on consortia arrangements.
5 4 3 2 1 0	The extent to which the results of the project may be extended to others.
5 4 3 2 1 0	The extent to which the evaluation relates to the objectives.
5 4 3 2 1 0	The extent to which the budget reflects the cost effectiveness for meeting the objectives.

SPECIAL CONSIDERATION WILL BE GIVEN TO SCHOOL DISTRICTS BASED ON THE FOLLOWING DEFINITIONS:

SMALL: A school district with a student population of less than 1,500 students.

RURAL: A school district with a population within its boundaries of less than 100 persons per square mile.

POOR: A school district that receives an aid ratio of .5 or higher.

ATTACHMENT A

DISTANCE LEARNING INFORMATION:

Distance learning is defined as a learning experience in which the teacher and student are physically separated by location. It provides students and adults with opportunities to participate in educational programs which otherwise would not be available to them. Distance learning uses technology to deliver programs directly to those in need in a cost-effective and efficient manner.

Distance learning programs and services currently available to Pennsylvania schools districts through the Pennsylvania Department of Education:

1. **SERC** (Satellite Educational Resources Consortium) - Pennsylvania is a member of this 22 state consortium which delivers over 1500 hours of educational programming via satellite each school year. SERC offers student courses in Russian I and II, Japanese I and II, Latin, Macroeconomics, Microeconomics, Probability and Statistics, Physics, Discrete Math, and World Geography. A variety of in-service and staff development workshops are available to teachers. Contact: Jean Tuzinski, Pennsylvania Department of Education, Division of School Library Media Services, 333 Market Street, Harrisburg, PA 17126-0333 (717)783-4413

2. **ELECTRONIC BULLETIN BOARD** - A distance learning bulletin board is available on the PENN*LINK electronic information system of the Pennsylvania Department of Education. This bulletin board serves as a clearinghouse and information source for a variety of distance learning programs and services. The three areas of information on PENN*LINK are:

   a. General Information

   b. National Update

   c. Teleconferences

3. **STATE AND NATIONAL TELECONFERENCES** - Many staff development teleconferences are available in most curriculum areas. For more information check the PENN*LINK distance learning bulletin board, Menu Option 3, Teleconferences.

Distance learning programs and services currently available from other distance learning providers:

1. **TELETEACHING** - Distance learning courses can be delivered via microcomputer technology and computer software using two-way audio, one way video over a telephone system. Schools can form partnerships to share course instruction. For an example of a teleteaching project already in use, contact: Dorothy Hajdu, Riverview Intermediate Unit, R.D #2, Greencrest Drive, Shippenville, PA 16254, (814)226-7103.

2. **PENNARAMA** - The Pennsylvania State University,in conjunction with the Pennsylvania Educational Communications Systems, offer continuing adult education courses to over 800,000 households statewide via cable. Student courses are being planned. For more information contact: Jerry Sawyer, PENNARAMA, 218 Wagner Building, University Park, PA 16802 (814)865-2698

3. **CABLE TECHNOLOGY** - The Pennsylvania Cable Television Association coordinates the use of cable in the classroom, including CNN Newsroom, X*Press X*Change, Arts and Entertainment, C-SPAN. For more information contact: William Cologie, Pennsylvania Cable Television Association, 119 Pine Street, Harrisburg, PA (717)234-2190.

4. **TI-IN Network.** Offerings include courses student courses in foreign languages, science mathematics and social sciences. For more information contact: Jeanne Moellendick, Educational Consultant, 3315 Smith Street, Parkersburg, West Virginia 26104 (304)428-1710.

5. **ASTS (Arts and Science Teleconferencing Service)** For more information contact: Missie Hess, Oklahoma State University, Stillwater OK 74078-0276 (800)452-2787.

6. **ESN (Educational Satellite Network)**: Resource clearinghouse for staff development and student enrichment programs. For more information contact: Betty McDonald, 2100 I-70 Drive SW, Columbia, MO 65203 (800)243-3376.

7. **SCISTAR.** Science student and teacher activities. For more information contact: Donald LaSalle. Talcott Mountain Science Service Center, Avon, CT 06001 (203)677-8571.

8. **NISS (National Instructional Satellite Services)** Offerings include K-12 instructional programs in all subject areas. For more information contact: Bill Myers, SECA, Southern Educational Communications Association, Columbia, South Carolina. (803)799-5517.

SUBJECT AREAS:

In many cases, courses in mathematics, social sciences, science, and foreign languages are emphasized--especially courses such as Probability and Statistics, Physics, and languages like Japanese, Russian and Latin. Distance learning can be used to teach a wide variety of critical, highly specialized courses in subjects which would otherwise not be readily available.

NOTE: For additional information about Distance Learning programs, contact:

Jean Tuzinski
School Library Media Advisor
Pennsylvania Department of Education
Division of School Library Media Services
(717-783-4413)

STATE LIBRARY OF PENNSYLVANIA
1745

Commonwealth of Pennsylvania

Department of Education
333 Market Street
Harrisburg, PA 17126-0333

DATE: September 17, 1992

TO:
School District Superintendents
Intermediate Unit Executives
Intermediate Unit Instructional Materials Services Directors
Intermediate Unit Non-public Supervisors
Diocesan Offices

FYI:
Library Supervisors
PSLA President
PAECT President
PASCD President
Institutions of Higher Education, College of Education
Distance Learning Providers
Math and Science Associations
Instructional Television Directors

FROM:
Sara Parker
Commissioner of Libraries

SUBJECT: DISTANCE LEARNING REQUEST FOR APPLICATION

The 1992-93 distance learning grant program will provide funds, up to $100,000 per proposal, to local school districts and educational agencies to provide equity in access and quality of student courses and teacher/staff development offerings. School districts are encouraged to cooperate with other districts, educational agencies and businesses to develop distance learning partnerships.

INSTRUCTIONS FOR SUBMITTING A DISTANCE LEARNING PROPOSAL APPLICATION:

A. Applicants may include:

1. Any local educational agency,
2. A partnership of local and other educational agencies
3. An intermediate unit representing local and other educational agencies.

If a school district is part of a consortium proposal, it may not additionally submit a single school proposal.

Poor, small, and/or rural districts are encouraged to form partnerships with larger, wealthier, and/or more urban school districts.

B. Funding information:

1. Applicants may request up to $100,000. Funds may be used:

   a. To support the delivery, implementation, and evaluation of new distance learning courses for students and teachers.

   b. For consulting work designed to lead to the provision of distance learning courses for students and teachers.

   c. To design new distance learning courses which offer a potential of going beyond immediate use.

   d. To offset the cost of sharing a teacher to deliver distance education courses.

   e. To purchase distance learning receiving and distribution equipment, services, and materials which might include but is not limited to: satellite receive equipment, videocassette recorders, monitors, wiring and conduits, cable equipment, instructional television fixed signal equipment, fiberoptic transmission lines and equipment, or distance learning microcomputer hardware.

   f. For distance learning software, service contracts, manuals, textbooks, curriculum developments, and student or teacher registration fees.

2. A 25% match of local funds to be applied specifically to items listed in B.1 is required.

   The following will be accepted as matching funds:

   a. Local or Federal funds
   b. Distance learning equipment paid for by local district or a business partner
   c. Teachers salaries, if directly related to delivering a distance learning course
   d. Expenses directly related to instruction, implementation or delivery of distance learning courses.

3. A partnership application may include a request for administrative costs. Up to 10% of the funds, but not exceeding $5,000, may be requested for the intermediate unit or school district serving as the administrator of the project.

4. Project funds must be expended or obligated by June 30, 1993.

C. The applicant will be responsible for:

1. Obtaining any local, state, and/or federal licenses or clearances, and meeting safety standards which may be necessary for installing reception and distribution equipment.

2. Installing, upgrading, and maintaining project equipment no later than June 30, 1993.

3. Enrolling students and/or teachers in a distance learning program by September 1993.

4. Submitting a final report. Include:

   a. An abstract explaining how the objectives of the project were met and how the project impacted student achievement and teacher effectiveness.

   b. A fiscal report summarizing the expenditures by line item.

   c. Recommendations for schools or consortia considering utilizing the same type of technology for distance learning programs.

   d. Public relations information such a highlights, success stories, and unexpected results of the project.

D. The application must include the following:

A cover sheet (see Attachment A).

Information regarding each school district, educational agency and/or partner included in the proposal (see Attachment B).

1. **Project Overview**

   Provide a brief project summary including the purpose of the project, educational need and how it was determined, student learners and how they were selected.

2. **Needs assessment**

   Describe the needs assessment process: how the application demonstrates a need for distance learning based on the educational, financial and demographic needs of the area. Explain what methods were used to determine the needs, e.g., test scores, surveys, interviews, etc.

3. **Project Objectives**

   List the objectives and tell what will be achieved if this project is funded. Include a description of the technologies to be used to meet the objectives. How will education be improved?

4. **Planning**

   Describe the plan for carrying out distance learning activities. What will happen? Who will be involved? How will the equipment or services be used? What are the benefits for students? How long will it take to implement the plan? Include a timeline. Define the potential for multiple use of the equipment that goes beyond the planned program. Explain how the project will be continued after the funding ceases. Provide information concerning the partnership effort, if applicable.

5. **Personnel**

   Provide information about the staff who will be working with the project, including qualifications and certifications. Indicate the training needed for the teachers to participate in this project. How and when will the training occur?

6. **Resources Selection**

Explain what equipment materials or services were considered for this project. How were these items evaluated? What was selected and why?

7. **Project Evaluation**

Indicate how this project will be evaluated. What criteria will be used to determine whether the goals and objectives have been successfully reached?

8. **Budget**

Provide a budget page which details specific costs and includes "matching" funds from the school district, intermediate unit or other agencies.

E. An original and four copies of the application must be received in the Department of Education, Division of School Library Media Services by 4:00 P.M. November 6, 1992. Telefaxed applications will NOT be accepted. Send the applications to:

Mr. Walter Leech
Distance Learning Coordinator
Pennsylvania Department of Education
School Library Media Services Division
333 Market Street
Harrisburg, PA 17126-0333

F. Applicants may expect to be notified of the action taken on their proposal by December 4, 1992.

G. Criteria for approval of application:

The proposals will be rated according to information supplied in Section D, 1-8 by a team of educators in elementary, secondary and distance learning. In rating the applications, priority will be given to proposals serving a number of schools, especially poor, small and/or rural districts and to proposals reflecting cooperation withing consortia.

SPECIAL CONSIDERATION WILL BE GIVEN TO SCHOOL DISTRICTS BASED ON THE FOLLOWING DEFINITIONS:

SMALL:	A school district with a student population of less than 1,500 students.
RURAL:	A school district with a population within it boundaries of less than 100 persons per square mile.
POOR:	A school district that receives an aid ratio of .5 of higher.

Attachment A

COVER SHEET

Applicant name and address:

Project Name: ______________________________

Project Manager: ______________________________

School District/IU: ______________________________

Address: ______________________________

____

____

Telephone: ______________ Telefax: ______________

County: ______________ IU: ______________

Number of school districts in the application: ______________

List school districts in project:

List other agencies in project:

State money requested: $______________

Matching money: $______________

Total project: $______________

Attachment B

SCHOOL DISTRICT, EDUCATIONAL AGENCY AND BUSINESS PARTNER INFORMATION:

Please photocopy this page and include the following information for each local educational agency, intermediate unit, other educational agency and business partner listed in the proposal:

District, IU, Partner: ______________________________

Contact Person: ______________________________

Address: ______________________________

____

____

Telephone: ______________ Fax: ______________

County: ______________ IU: ______________

School districts should check all which apply:
(See Section G for definitions)

Small _____ Rural _____ Poor _____

Superintendent: ______________________________
(IU Executive Director, (Please type)
Agency and/or partnership director)

Superintendent's Signature: ______________________________

Date: ______________________

DISTANCE LEARNING INFORMATION

Distance learning is defined as a learning experience in which the teacher and student are physically separated by location. It provides students and adults with opportunities to participate in educational programs which otherwise would not be available to them. Distance learning uses technology to deliver programs directly to those in need in a cost-effective and efficient manner.

Telecommunications technologies used to deliver distance learning offerings are: microcomputers with modem connections, satellite equipment, fiberoptic cable and telephone lines, and broadcast transmission. The following distance learning programs illustrate the broad offerings available in Pennsylvania:

SERC (Satellite Educational Resources Consortium) - This 22 state consortium delivers over 1500 hours of educational programming via satellite to 307 Pennsylvania students in 67 schools. Pennsylvania students are participating in Russian I and II, Japanese I and II, Macroeconomics, Microeconomics, Probability and Statistics, Discrete Math, and World Geography. A variety of in-service and staff development workshops are available to teachers.

TELETEACHING - Some schools in Pennsylvania participate in distance learning using a system of two-way audio, one way video over a telephone system. Using microcomputer technology, schools are able to share instructors across geographic boundaries. Courses in science, mathematics and computer technologies are being offered.

PENNARAMA - The Pennsylvania State University in conjunction with the Pennsylvania Educational Communications Systems offers continuing adult education courses to over 800,000 households statewide.

PENN*LINK - The official electronic communication network of the Pennsylvania Department of Education linking the Department, local school districts, public library district centers and intermediate units.

PREPNET - The Pennsylvania Research and Economic Partnership Network is the electronic highway linking educational institutions, libraries, businesses, and medical and industrial research facilities with each other and with computer and information resources.

LIN-TEL(Linking Information Needs-Technology, Education, Libraries) - LIN-TEL is an electronic network administered by the State Library designed to make online database searching and information retrieval available to school students, and to make research/resource gathering an integral part of the school library media curriculum.

DISTANCE LEARNING CLEARINGHOUSE - This weekly updated database of information about teleconferences and distance learning opportunities and programming is available to schools through PENN*LINK.

STATE AND NATIONAL TELECONFERENCES - The Department of Education provides its facilities and downlink services for appropriate interactive teleconferencing activities to state agencies. Intermediate Units and others provide teleconferences to a variety of audiences.

CABLE TECHNOLOGY - The Department of Education works with the Pennsylvania Cable Television Association to coordinate the use of cable in the classroom, including CNN Newsroom, X*Press X*Change, Arts and Entertainment, C-SPAN.

LEARNING LINK - A computer-based information and communication system coordinated by the Pennsylvania Public Television Network supports and expands the use of instructional television and other electronic educational media.

SATELLITE DISTANCE LEARNING PROVIDERS - Some schools are obtaining program services from TI-IN, Oklahoma State University, and NISS (National Instructional Satellite Services). Courses being provided include Spanish, German, Russian, and a variety of other discipline areas.

FOR MORE INFORMATION CALL COMMONWEALTH LIBRARIES, DIVISION OF SCHOOL LIBRARY MEDIA SERVICES:

Wally Leech	(717) 783-9806
Jean Tuzinski	(717) 783-4414

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